THE WORLD'S BIGGEST SELLING ST MAGAZINE

ST FORMAT

ISSUE 84 ■ JULY 1996 ■ £4.25

THE EX-FILES

Recover lost files, repair corrupted disks and avoid computer viruses

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JAGUAR CD

Reviewed in full – at last

REVIEWED THIS MONTH:

- PORTABLE CD-ROM DRIVE
- E-COPY
- FONT PACKS
- EPSON GT-5000 SCANNER
- MOVING PIXELS CD-ROM
- PRO 24
- JAGUAR CD
- MISSILE COMMAND 3D
- BATTLEMORPH 3D

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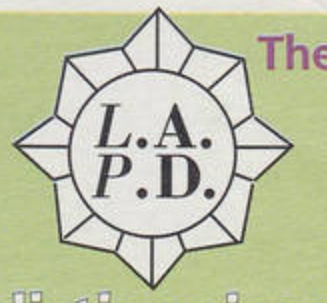
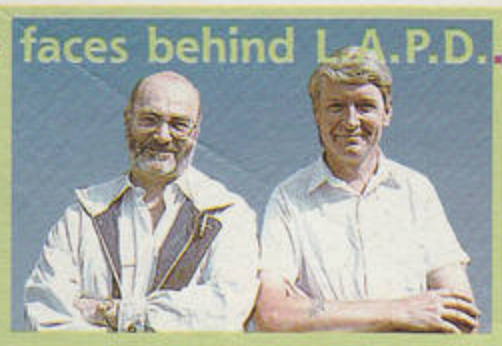
REVIEWED INSIDE: PORTABLE CD-ROM DRIVE ● EPSON GT-5000 SCANNER ● E-COPY

L.A.P.D.



The faces behind L.A.P.D...



Software at realistic prices

PD DISKS: • £1.50 each • Budget range PD Disks ONLY £1.00

Same day service, quality virus-free disks

Please add 50p P&P on orders under £5.00. Overseas customers (outside Europe) please add 50p per disk

LAPD HAS NOW BEEN VOTED TOP PD LIBRARY BY ST FORMAT READERS.

ALL DISKS BELOW ARE ONLY £1.50 UNLESS OTHERWISE STATED

games

ARCADE

G.466 ZAPTASTIC 2 (S/W): A fast action arcade blast in the style of Llamatron. ***NEW***
G.467 BANG & BLASTMAN (1Mb): Explosive 2 player Bomberman action (2 joysticks). ***NEW***
G.468 SUBAQUA (S/W, Falcon compatible): Highly rated underwater shoot 'em up. ***NEW***
G.463 PARALLAX PAINTER: Three dimensional platform/puzzle game. ***NEW***
G.449 MICHIGAN MIKE & THE LOST CITY OF ZOROG: Super new platformer in the rain forest
G.454 TRAPPED II: Ten levels of fast 'Light Cycle' action (1Mb, STE, S/W) (Order G455 for STFM)
G.448 H.E.R.O.: Human Extraction & Rescue Operation: One time commercial platform game
G.450 THE ORIGINAL: Colourful 'Boulderdash' type diamond mining puzzle game ***NEW***
G.457 DEADLAND: Search and rescue mission 'Cannon Fodder' style
G.456 SUPER CHICKEN: Collect eggs with a giant chicken using escalators and ladders.
G.460 SKYDUEL: A single or multi-player air combat game; ballistic missiles, dogfights and ground attacks.
G.433 GENOCIDE: (1Mb, STE, S/W): Fast space 3D shoot 'em up.
G.417 STAR VOYAGE: Intergalactic action – requires 2 joysticks (Ex Star Trek - TNG). (2 disks/£3.00, 1Mb)
G.413 COMBAT: Fast action military shoot 'em up in style of Operation Wolf
G.410 PACMAN ON E: One or two player classic 'PacMan' with sampled music (1Mb, STE)
G.405 ULTIMATE ARENA: Beat 'em up in the style of 'Mortal Kombat' (STE, 1Mb, S/W).
G.403 SQUARE OFF: The ultimate tumbling block 'Tetris' game (STE, 1Mb) (2 disks/£3.00).
G.398 ASTEROIDIA (STE): Classic asteroid blasting action – order G399 for STFM version (1Mb, S/W).
G.395 DYNABLUSTER: Bomb laying and dodging arcade game (STE, 1Mb).
G.366 DAVE MUNSIE GAMES: 9 games from the master programmer, including Frogger (1Mb).
G.355 WING LORD: Aerial duelling game in the style of the classic 'Joust'.
G.380 STARBALL: Pinball game - arguably the best PD game on the ST!
G.381 MAX: Help Max find his girlfriend. A 'cute' arcade platform game (1Mb).
G.286 ROCKFALL - SPECIAL EDITION: Tunnelling/diamond collecting puzzle game.
G.80 TETRIS & PILE UP: Two very good versions of the 'Tetris' arcade game.
G.171 HACMAN II: 1 megabyte version of PacMan, 100 new levels!
G.110 LLAMATRON: 100 levels of fast arcade action with wicked sound FX.
G.201 BLATI: 'Tetris' style three in a row, falling blocks with many added features.

FANTASY/ROLE-PLAY

G.425 ANORAKS OF DOOM: First person view fantasy role-playing game. (2 disks/£3.00)
G.124 SPECTRAL SORCERY: Excellent game of battling wizards.
G.172 HERO II: Detailed graphic role-play adventure (1Mb)
G.416 DANGIMERE: Detailed fantasy role-playing game. (1Mb, 2 disks/£3.00)
G.412 NISHIRAN: Classy sci-fi, first-person view role-playing game. (1Mb) (2 disks/£3.00).
G.198 OMEGA: A large and complex wilderness and dungeon adventure with hours and hours of play (1Mb)
G.431 REALMS OF REALITY: First-person view dungeon exploration and monster-bash.
G.351 TOWERS: First-person view role-playing fantasy adventure game ***NOW COMPLETE*** (1Mb) (2 disks/£3.00).
G.452 LAP OF THE GODS: Complex German language fantasy role play game (1Mb, mono, 2 disks/£3.00)
G.308 WALLS OF ILLUSION: The ultimate 'Dungeonmaster' clone with English instructions (1Mb).
G.426 WYRD WAYS: Magical combat in a maze of sliding walls (1Mb, S/W).
G.5 MORIA: A complex fantasy D&D based role-play game. (1Mb).
G.370 MINDMELT: Fantasy adventure with an overhead view.
G.288 DARKLYTE: 'Space Crusade' type droids wargame.
G.237 CHAOS: Madcap game of battling wizards by Martin Brownlow (1Mb or 0.5Mb)
G.262 ALIENS!: Space Marines v Aliens strategy combat game.
G.115 MYSTIC WELL: Complete 'Dungeonmaster' style adventure game.

PUZZLES

G.461 SHAPE UP (1MB, STE): A puzzle game of placing coloured squares on a grid. ***NEW***
G.436 SHRINKING WALL SOLITAIRE (1Mb): Challenging and addictive 'Match it' type game.
G.443 WORD QUEST: Construct and play word squares. Over 50 puzzles on disk ***NEW***
G.446 THE FRENCH COLLECTION: Three puzzle games; MANCIOLA, QUINZAINE & MOLECULE.
G.387 SPACESWEEPER: A challenging 'Minesweeper' game in three dimensions!
G.311 JIGSAW: A computerised jigsaw puzzle (1Mb).
G.269 QUIZMASTER: Multi-choice answer general knowledge quiz (STE).

TEXT ADVENTURES

G.158 LOTTERY: Adventure in the red light district of San Francisco
G.462 CYBERCOP: Future cop murder investigation. ***NEW***
G.411 ROBOT REVOLT: A sci-fi text adventure.
G.162 AROUND THE WORLD IN EIGHTY DAYS: Try to emulate Phineas Fogg.
G.184 HEATHER'S EASTER EGG HUNT: Adventure for 7 to 12 year olds
G.394 THE SECRET PARK: A text adventure with graphics for children 8 years upwards.
G.362 MARCH OF THE MODS: Strive to become 'Ace Face' (contains mild swearing, violence and drug abuse)
G.225 CAILYNVORN: D&D type fantasy adventure set on a far earth-like planet.
G.140 A NIGHT ON THE TOWN: An adventure with the opportunity to meet the girl of your dreams and ...well, the rest is up to you.
G.91 QUEST FOR THE HOLY GRAIL: Pythonesque madcap humour.
G.202 UNNKULIAN UNDERWORLD: Highly rated large scale text fantasy adventure.

GRAPHIC ADVENTURES

G.383 MOBSTERS' CITY: Track down twelve gangsters.
G.246 HYSULA: 3D virtual reality fantasy adventure.
G.217 THE MAZE: 3D adventure game loosely based on 'The Crystal Maze'.
G.321 INVESTIGATION: Graphic adventure in the style of Sierra On-Line (2 disks/£3.00)
G.356 ENDURANCE (1Mb): Space station adventure in 3D virtual reality
G.200 ANARCHY ACADEMY: 3D graphic adventure to blow up the school!
G.222 GRANDAD AND THE QUEST....:3D graphics adventure by Ian Scott. Shareware (1Mb).
G.303 GRANDAD AND THE SEARCH FOR THE SANDWICHES: Graphic adventure (1Mb, 2 disks/£3.00).

STRATEGY & OTHERS

G.437 BINGO! (1Mb): Simulation of the seaside game with voice.
G.438 RACE (1Mb): Try to succeed in the 'Rat Race' of life (Board game adaptation)
G.432 MIDI-WIZ: Fantasy war game with similarities to 'Civilisation'. (1Mb, S/W).
G.131 STAR TREK - THE GAME: Defeat the Klingon threat to the galaxy (1Mb).
G.427 AIR TRAFFIC CONTROLLER: Control comings and goings at a busy international airport.
G.386 STAR TREK - KLINGON WARS: A Starship Enterprise battle simulation (1Mb).
G.431 REALMS OF REALITY: 'Dungeonmaster' type exploration and adventure (1Mb).
G.421 WAR: A wargame construction kit (1Mb).
G.290 SOFTWARE PROJECTS: Run a software company business sim.
G.390 INTERNATIONAL MANAGER: European Nations/World Cup management game.
G.391 ANCIENT GAME OF GO: Two computer versions of the Oriental game (Gnugo, Amigo).
G.344 CHESS-MATE: A chess/draughts game analysis tool.
G.332 CAESAR: Strategy game set around the Mediterranean in 200BC (S/W).
G.330 GNU CHESS: French chess playing program for all levels.
G.388 STRATAGEM: Two player strategy world war game (2 disks/£3.00).
G.329 PEGASUS: Space strategy game. Seek out and colonise planets (1Mb) (2 disks/£3.00).
G.287 THE COARSE ANGLER: Angling simulation game (1Mb).
G.324 IMPERIAL CONQUEST: Complex ancient Mediterranean game of conquest (S/W).
G.325 SOCCER MANAGEMENT: A complex simulation of soccer management (S/W).
G.173 PENGUINS: Move your penguins around the screen 'Lemming' fashion.
G.10 VEGAS: Roulette, poker, blackjack and slots... without the Nevada sand!

budgie uk

BU.119 FOOTBALL TACTICIAN 1: The original £19.95 Premier League version of the soccer management game!
BU.111 INTERNATIONAL CRICKET II: Animated 3D game (1Mb).
BU.90 MATCH IT: Possibly the most addictive game ever devised.
BU.89 HORSE RACING SIM: Quality sim from the sale ring to the track.
BU.86 QUATRIS: Superb 'Tetris' style puzzle game with falling cubes.
BU.71 DARK WARS: Role-playing adventure with a 3D view.
BU.70 PACMAN ST: The definitive version by Robert Leong.
BU.50 SPACE INVADERS: Classic arcade action by Robert Leong.
BU.30 QUEST FOR GALAXIA: The "Galaxians" return to your ST.
BU.10 MONEYSPINNER: Slot machine action with nudges, holds, gambles and more.
BU.8 SPECULATOR: True to life features market simulation.
BU.5 PRO DARTS: Mouse controlled 501 match play.
BU.4 OTHELLO: An immaculate implementation of the board game.
PRO.1 ELECTRONIC BANK STATEMENT: Home money managing program.

ST FORMAT TOP 10 GAMES - ONLY £12.00

A special bargain bundle of the top 10 PD and shareware games as selected by ST Format magazine in issue 75. They are 4-7-11, Colortris, Drachen, Grandad and the Quest for the Holey Vest, Grandad and the Search for the Sandwiches, Llamatron, Ozone, Starball, Stello, Super Breakout and Towers.

dave munsie games

Munsie Games, some of the most playable and fun-filled games on the Atari, can now be registered via L.A.P.D.! Send us the code number from your game and we'll send you the pass-code giving access to extra lives, extra levels, etc.

Cost is just £6.00 per title.

Games that can be registered so far are Asteroidia, Frantic and Square Off.

All registrations receive a FREE copy of Dave's SEA WOLF game!

Pre-registered complete versions of these incredible games may also be purchased as follows:

L119 ASTEROIDIA: The classic game 'Asteroids' with 3D rendered asteroids. (STE, £7.00).
L120 ASTEROIDIA: The STFM version of the above (STFM, £7.00).
L121 FRANTICK: Fast action kinetic combat simulator Frantick (STE, £7.50).
L122 FRANTICK: The STFM version of the above (STFM, £7.50).
L123 SQUARE OFF: Falling block puzzle game in the style of the classic 'Tetris'. (£7.50).

FREE MUNSIE DISK'O'ZINE

For a free copy of Dave Munsie's magazine disk with information and screen shots about his games just send a blank disk and an s.s.a.e. to the L.A.P.D. at the address below.

L.A.P.D. Licenceware Games

Possibly the best licenceware range on the ST

Licenceware means that for every copy you buy the author receives a royalty payment from L.A.P.D. This ensures that the authors receive suitable recompense for their hard work thus encouraging them to produce even more excellent programs for the Atari range of computers. It saves you all the fuss and hassle of shareware payments. Licenceware programs are complete and ready to run, there are no hidden fees!

strategy games

L.138 EMPIRE STAR (£3.00): Science fiction wargame, similar to 'Empire' for 1 to 3 players. ***NEW***
L.137 INFINITE POWER (£3.00): Maintain an ecological and financial balance running a power station. ***NEW***
L.136 TRADER (£3.00): Sea trading game set in 14th century northern Europe.
L.135 ANNEX (£4.95): 3D role-play inspired by 'Dungeonmaster' and 'Doom' ***NEW***
L.128 BLUDGEON V.2 (1Mb, £3.00): Computer moderated fantasy combat system for one or more players. Includes two free adventure scenarios.
L.129 BLUDGEON ADVENTURES #1 (£3.00): Six additional solo adventures for the above BLUDGEON game.
L.124 THE SANDS OF MARS (£3.00): Govern a Martian mining colony.
L.132 SEA WAR (1Mb, £2.50): Hi-tech version of 'Battleships'. Design and fight your own fleet.
L.105 CONQUEST 2 (1Mb, £3.00): Rule over a medieval kingdom's economy and armies.
L.104 WAR OVER THE REICH (1Mb, £3.00): Plan and execute a campaign of WWII raids against twelve German cities.
L.98 WORLD AT WAR (1Mb, £3.00): A game of economic and military strategy on a grand scale for one to seven players.
L.22 GRAND PRIX MANAGER (£2.50): Simulation game of running a Formula One Grand Prix team.
L.79 DARKLYTE II (1Mb, £3.00): A sci-fi space/strategy game in which you must destroy the Darklyte forces. Reminiscent of the 'Space Crusade' game.
L.59 ARTHUR OF THE BRITONS (1Mb, £3.00): A strategy game with arcade sequences.

PO Box No.2 Heanor Derbyshire DE75 7YP Tel or Fax: 01773 761944/605010 (orders only)

e-mail: Clive@lapd.demon.co.uk or Leigh@lapd2.demon.co.uk

24 hour despatch on all orders No waiting around for disks to arrive!!

arcade games

L.139 BANG & BLASTMAN PLUS (1Mb, 2 disks/£6.00): Explosive 2 player Bomberman action (2 joysticks). ***NEW***
L.130 DESERT HAWK (1Mb, £3.00): Control a Black Hawk helicopter through different missions.
L.87 STORM (1Mb, STE, £3.00): Arcade action clearing aliens from a stricken space-freighter.
L.91 STORM (1Mb, STFM, £3.00): As L87 above but for the STFM.
L.117 FISH TANK (£3.00): A game for younger players who must find food for their fish without getting eaten.

adventure & role-playing games

L.131 WANDERING SCIENCE (£2.50): Solve the puzzles on an alien vessel. A graphic adventure.
L.125 PATHS OF GLORY (£3.00): A sword and sorcery role-playing game.
L.115 DEMON II (1Mb, £3.00): A fantasy adventure game with an overhead view and detailed point and click interface.
L.114 TIME MACHINE (£3.00): A classy text based adventure with over 100 locations and over 40 graphic screens.
L.112 CRAGHAVEN (£2.50): High adventure in a fantasy land.
L.97 STONE COLD SOBER (£4.00): A traditional adventure game but with a point and click interface.
L.69 BIO-HAZARD (1Mb, £3.00): A first person perspective game to clear a space freighter of alien creatures.
L.21 DEAD OR ALIVE (£3.00): A large, complex and humorous text adventure game.
L.31 THE CURSE OF AZRIEL (2 disks, £4.00): A graphic fantasy role-playing/trading game.
L.41 MURDER ON THE ORION EXPRESS (£3.00): A murder mystery game with an almost infinite variety of solutions.
L.50 DEMON (£3.00): Trapped in a stone cell, your first task is to escape before the resident demon gets back. 3D view.

puzzles

L.133 LAZER (£2.50): Use mirrors to direct a lazer around mazes.
L.102 DCS COMPILATION #4 (£3.00): On this disk are: BRAIN DAMAGE, test your brain to the limit. SHAPES, make shapes from 16 different pieces. LINK, form a chain across the screen. QUIZICAL, multi-choice question and answer game.
L.101 DCS COMPILATION #3 (£3.00): On this disk are: OUTRAGEOUS FORTUNE, a collection of logic and maths challenges. MATCH MAKER 2, match symbols on hidden cards. FRAME OF MIND, a gambling game. CRYPTOGRAM, based loosely on the TV program 'Countdown'.
L.66 HEARTBREAK (£3.00): An infuriating and highly addictive puzzle game played on a 7 x 7 grid.
L.140 SEVEN KEYS (£3.00): Increasingly challenging temple exploration game. ***NEW***

art & graphics

A.99 MINIPICS II: All resolution picture converter and cataloguer (1Mb).
L.77 AUTO-STEREOGRAM: Create your own 3D 'Magic Eye' pictures (1Mb) (£3.00).
L.71 ARTIST FREEHAND: Complete art package with multiple screens, animation, etc (£3.00)
A.107 ASCII ART: Hundreds of images rendered in ASCII characters.
A.95 VISUAL ILLUSIONS: A collection of 24 'Magic Eye' 3D pictures.
A.98 STEREOGRAM ANIMATIONS: Now see 'Magic Eye' pictures move!
A.36 KOZMIC 4: Complete version of the stunning psychedelic pattern creator.
A.1 ANI ST: Commercial quality animation program (once cost £60.00 to buy!).
A.84 GEMVIEW: Load, view, convert just about any picture format (1Mb).
A.45 CRACK ART: Demo version of the excellent German art program.
A.75 POLYFILM by Martin Brownlow. Make films from multiple 3D polygon objects.
A.44 FANTASY SLIDESHOW: Spectrum 512 pictures on fantasy theme (over 16's only).
A.35 IMG UTILITIES: Convert Degas, Neo, Spectrum Mac and Tny files to IMG.

clip art

(Where PCX and IMG formats are offered you must state which you require)
A.109 CHILDREN (3 disks/£4.50 PCX/IMG): Over 90 quality clip art images of babies and children. ***NEW***
A.103 OFFICE CLIP ART: 33 IMG or PCX images of office related items.
A.107 HANDS CLIP ART: Over 70 IMG images of hands; pointing, waving, writing etc
A.100 ANIMALS CLIP ART (5 disks/£7.50): Over 170 IMG or PCX images of animals.
A.101 ASTROLOGY CLIP ART (3 disks/£4.50): 36 IMG or PCX images of zodiac signs.
A.102 SPACE CLIP ART: 38 images of the final frontier in PCX or IMG format.
A.106 CHRISTMAS CLIP ART (3 disks/£4.50): Over 150 images in PCX or IMG.
L.26, L.27, L.28 TYPE WRITE CLIP ART: 4 disk sets of quality clip art in IMG format. (£10.00 per set).

utilities

U.86 BLITZSCHNELL (S/W): A hard drive defragmenter and optimizer from Germany.
U.80 ZORG: A 'Disk Doctor' type organiser.
U.77 THING: Alternative desktop (1Mb).
L.111 SUPER HACKER: Replace a picture in almost any game or demo with your own! (£3.00).
U.67 ST TOOLS: An exhaustive collection of Atari ST utilities.
U.53 TERADESK V1.36: Replacement desktop for the ST/STE (1Mb).
U.20 FASTCOPY 3: Excellent disk copier for cover disks.
U.48 PREMIER PACKERS: 13 of the best program packers, plus a de-packer.
U.42 PICTURE HUNTER: Rips picture screens from other programs.
U.47 PROBE ST: Handy utility. Grabs music/graphics, disk/memory editor, etc.
U.52 VAULT & TURTLE: Fast hard disk back-up utilities.
U.88 CD PLAYER: Audio CD player for ST or Falcon.

ST FORMAT PRODUCTIVITY PACK

(TOP 40 UTILITIES) FOR £25.00

A special bargain pack of the top 40 PD and shareware programs (excluding games) as selected by ST Format magazine in issue 75. The programs are: Atomik 3.6, Autosort, Cardfile, Chameleon, Compact Office Manager, Crack Art, DB Master, Easy Text, Elf Backup, ESS Code, Everest, Fast Copy 3, GEM Spool, GEM View, Hypergem, Idealist, Kivi Qwk, LHArc, Marcel, Magic Story Book, Mouse-ka-Mania, Movie Master, Octalyser, Opus, POV Ray Trace, ProCalc, Revenge Document Displayer, Sagrotan, Second ST Manual, Selectric, Soundlab, SpiritEd, ST Diary, Superboot, Sweet 16, Teddy Term, Teradesk, Tom Shell, Turbo 407 and X Control.

miscellaneous

M.202 LEAGUE TABLE MANAGER: Maintain up to 8 soccer type league tables. ***NEW***
M.199 COSMOLOGISTS' EQUATIONS: Calculate age of universe, etc. Experts only! ***NEW***
M.196 MAGIC NUMBERS: Polygon regression and cluster analysis. ***NEW***
M.189 NATIONAL LOTTERY SIMULATOR: The fun way to pick your numbers. (1Mb, 2 disks/£3.00).
M.177 LOTTERY COMPANION: Valued statistical assistance with your lottery entries.
M.195 ELEMENTS PLUS: Information/help disk for chemistry students ***NEW***
L.134 FILM DIRECTOR ELITE: Multi-media language system - from slideshows to packages (2 disks/£4.95) ***NEW***
M.194 ROLL IT: Selects lottery numbers randomly and calculates chances of winning a prize ***NEW***
M.193 OUT OF THIS WORLD: A 'fun' typing tutor - type the tumbling letters before they crash.
M.183 HOUSE EXPENSE MANAGER: Daily household expense management program.
L.103 LEXICON: The ideal program for word game fanatics. Solve crosswords, anagrams etc (£3.00).
L.111 SUPER-HACKER: Put your own picture into demos, games etc. (£3.00)
M.146 AWARD MAKER: Design and print awards certificates.
M.155 ROUTE FINDER: Route finding program for England, Wales and Scotland.
M.161 THE GARDENER: A special database for gardening enthusiasts.
M.175 FISHERMAN'S DATABASE: The ultimate record program for the keen angler.
M.19 AIR WARRIOR: Flight sim with World War II aircraft.
L.17 ADDRESS BOOK: Neat and easy to use database for names and addresses (£2.50).
L.18 CIRCUIT: Easy to use electrical circuit diagram producing program (£2.50).
M.93 STITCH MATRIX: Pattern making program for knitting machines.
M.77 THE BIBLE: King James authorised version (3 disks/£4.50).
M.76 FORM-FINDER: Proven horse race analysis and prediction program.
M.81 NEWSDISK: Construct your own newsletters and magazine disks.
M.100 GERMAN TRANSLATORS: Three programs to translate German text to English.
M.26 GENEALOGY: Two programs for the family historians to trace their forebears.
M.5 YOUR SECOND ATARI ST MANUAL: Text files to supplement the official manual.
M.17 WORD PUZZLE: Stuck with word games? Then this disk may help.
M.30 EXTRA WORD LIST: 70,000 extra words to use with disk M17.
M.111 NORTHERN & EQUATORIAL STAR ATLAS: Superb serious astronomy program S/W.
M.1 PLANETARIUM: Excellent, easy to use, astronomy program.
M.173 THE BIBLE: Complete King James, Old and New Testaments (3 disks/£4.50).
L. 89 GOLF: Database for the golfing sports-person. (£3.00)

programming

U.85 EXTRA v3.21 (S/W): A powerful extension for the STOS language, 60 + extra commands. ***NEW***
F.53 STOSTESTERONE: A magazine disk devoted to programming STOS on the STE (issues 1 to 3 available).
P.53 IMAGINARY WORLD: Easy to use language to write your own role-play adventures.
U.76 LIBRARY CREATOR: An essential tool for GFA programmers to construct a single file.
P.55 STOS CYBER EXTENSION: An extension to the STOS programming language
P.44 GFA V.2: Full version of language with tutorial & compiler! (N.B this disk is not PD - L.A.P.D. have permission to distribute it.)
P.16 GFA EXPERT: Massive text file and help routines for GFA-Basic 3.0
DSP.1 SOZOBON C: A complete C compiler with documentation.
P.24 MENU-MAKER: Make your own menus with music, sprite and scrolling message.
P.33 ZX SPECTRUM EMULATOR: Emulate the old Speccy on your ST/STE (1Mb).
P.17 68000 PROGRAMMING COURSE: 10 'How to do it' document files.
P.16 C ADVENTURE TOOL KIT: Write professional quality adventures in C.
P.57 68000 PROGRAMMERS INTRO TO DEMO TECHNIQUES: Set of help documents.
P.16 C ADVENTURE TOOL KIT: Write professional quality adventrues in C.

music

S.160 GUITAR REFERENCE: Useful program for anyone learning or playing.
S.4 YAMAHA PSS: Patch editor and facility to print tablature music.
S.156 FINAL SCORE: A music score printing program (mono only)
S.144 EKSEQ 1: A 100 track, 240ppqn sequencer with many features.
S.145 OPTRONIX MUZAK: Rip and play music from other programs.
S.8 NOISETRACKER: Soundtracker .MOD player with eight starter tunes.
S.7 ACCOMPANIAST: 16 Voice Henry Cosh sequencer (full instructions on disk).
S.19 ALCHIMIE JR: Impressive Swiss multi-window, multi-task sequencer (1Mb).
S.158 SWEET 16 LITE: An easy way into MIDI sequencing.

business

M.182 ST DIARY: A computer diary for the busy executive.
W.25 EASY TEXT: Easy desktop publishing program.
W.21 MARCEL: Super word processor with built in spell checker.
M.106 ACCOUNT-ABILITY: Fully featured accounts program. 10 accounts, 2,000 transactions!
M.148 INVOICE MASTER: Excellent invoicing system for small businesses.
M.13 OPUS 2000: A superb spreadsheet program (1Mb).
M.83 INVENTORY PRO: A stock control system.
U.23 DOUBLE SENTRY: Impressive accounts package for the small company
U.33 FAST BASE: A powerful and flexible database.
W.3 FIRST WORD: Word processor that set the standard for others to follow.
W.24 GDOS FONTS: A large assortment of fonts (2 disks/£3.00).

educational

M.188 G.C.S.E. MATHS & CHEMISTRY TUTOR: Two study aid programs.
M.20 G.C.S.E. STUDY AIDS: Help with Algebra, Trigonometry and Geometry.
M.187 TYPING TUTOR: Several courses to improve your skills.
M.186 KIDZ EDUCATIONAL: Nine learning programs for youngsters.
L.20 SUPER SPELL: Teaching games for the 4 to 9 year old (£2.50).
L.37 SUPER FUN: More teaching games for the 4 to 9 year old (£2.50).
G.266 WITCHES, MICE & FAIRY TALES: Games for younger users.
G.83 NOAH'S ARK: Collect the animals, two by two - addictive for adults too!
M.95 ABOUT THE HOUSE: Excellent collection of programs for young children.
M.28 KIDZ EDUCATIONAL: Alphabet, Maths Test, Numerical-Go-Round & Number Maze.
M.37 KIDZ DISK #1: Colouring Book, Spell Pic, Word Pic and Flash Card.
M.42 KIDZ DISK #2: Dot to Dot, Keyboard Capers & Matching.
M.67 BODY SHOP: Graphic quiz-type human anatomy tutor.
M.104 SOLAR SYSTEM GEOGRAPHY: Effects of the sun & moon on tides, seasons, etc.
M.16 KIDZ COMPILATION: Kid Graph, Grid, Music, Notes, Piano, Publisher, sketch and story.. all on one disk!
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C.22 TEDDYTERM: A superb multi-function communications program.
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B.20 HACMAN: Pacman action
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B.58 GALAXIANS: Diving Invaders
B.51 COLOSSAL CAVE: The original adventure
B.15 ROLL 'N' NUDGE: Fruit machine
B.36 8 BALL POOL: Bar game simulation
B.50 STAR TREK: Save the Federation
B.44 FLY ROBIN: Cute children's game

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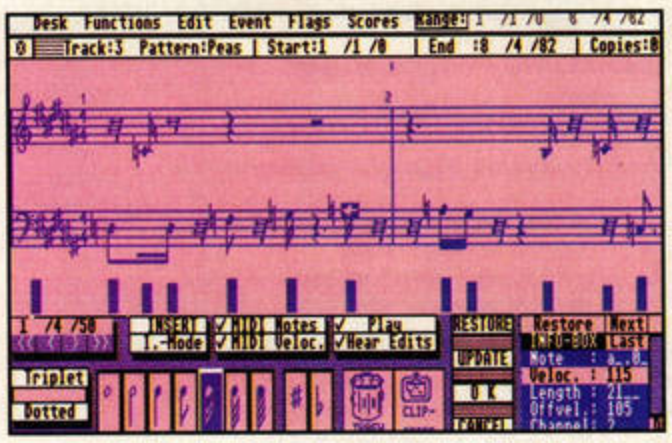

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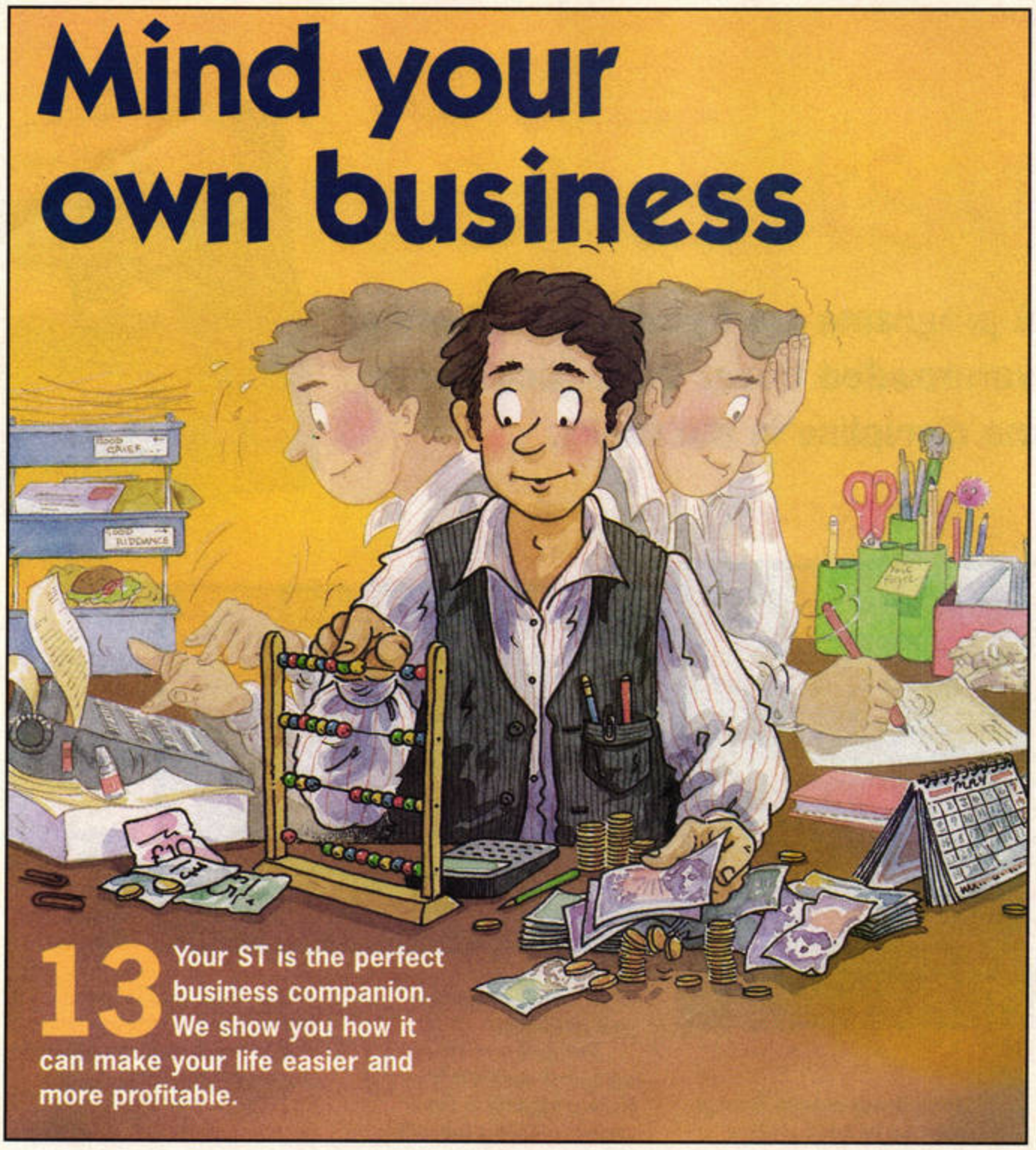
Mind your own business



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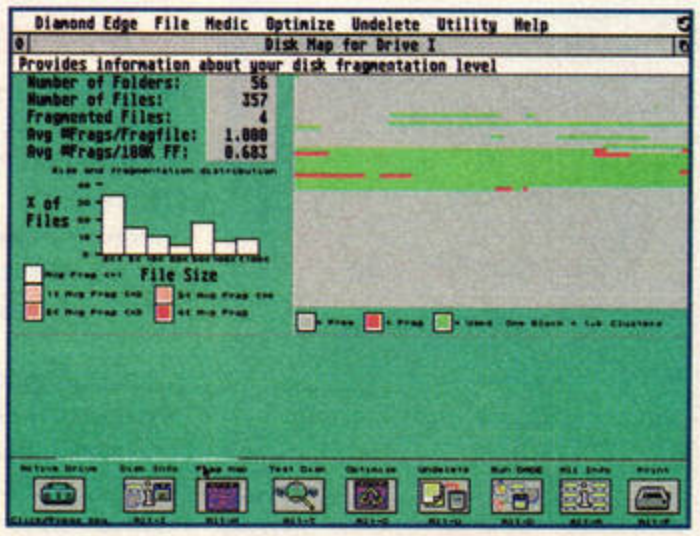

Undelete files, protect against viruses and keep your hard drive healthy – page 46.

COVER DISK 84

THIS MONTH...

BANG AND BLAST MAN: Blow up a friend in the nicest possible way with this addictive and colourful *Bomberman* clone for two players. Requires a 1Mb Atari. Uncompressed size: 525K

CONTACT: Keep all your important contact details safe in this versatile address book manager. All Ataris with 1Mb of RAM. Uncompressed size: 280K

PHEM 2: Monitor your expenses and accounts with the *Probe House Expense Manager*. All STs. Uncompressed size: 141K

QBACKUP: Back up important files to up to five disks with this straightforward utility for all Ataris. Size: 81K

MAGIC STONES: Three classic puzzle games combined into one program/Accessory. All Ataris. Uncompressed size: 89K

BUBBLES: Small, but perfectly formed screensaver to protect your TV or monitor. All STs (partially TOS 2.06 and Falcon compatible). Size: 51K

UNDELETE: Recover accidentally lost files. All STs (not TOS 2.06). Uncompressed size: 103K

DISK CHECK 2.3: Check the status and structural integrity of your disks. All Ataris. Size: 12K

BACKUP: Need we say more? Just do it. Now. Oi! Now! Size: 12K

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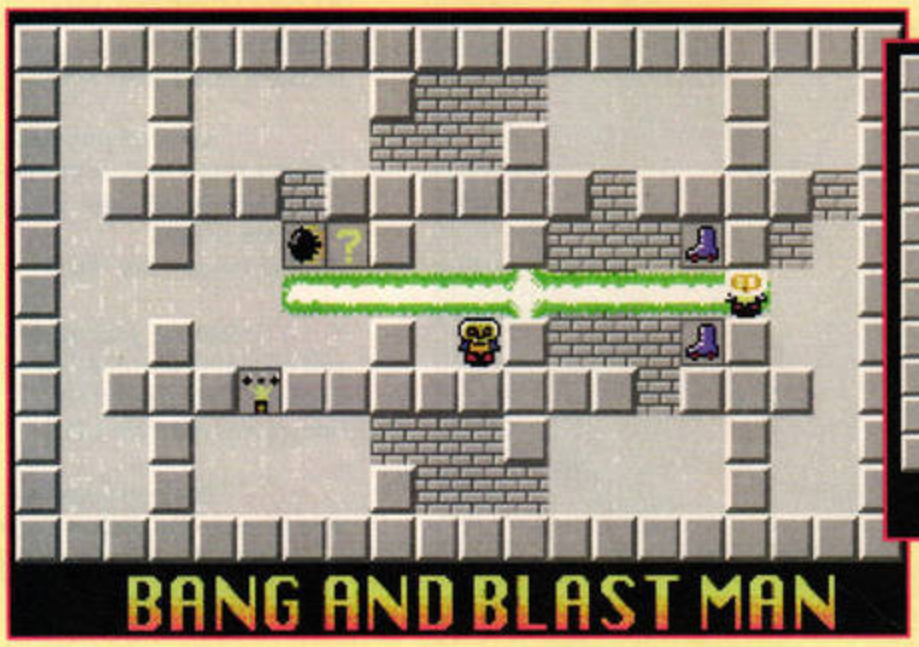
Cover Disk

No less than eight programs are fighting for attention on this month's overcrowded Cover Disk. Nick Peers tries to install some discipline in the ranks.

BANG AND BLAST MAN



Ooh. Pretty green flames. Pretty devastating too.

No less than 31 different arenas can be selected – that's 31 different ways to jeopardise a friendship.

By: MegaGold
Machines: All Ataris (TOS 2.06 and Falcon with a *STOS* fix utility)
Resolution: ST low
Memory required: 1Mb
Uncompressed size: 525K

It's been a long time, but here's another game designed to end beautiful friendships. Two players must blow each other up in this addictive *Bomberman* clone. You'll need a gullible friend and two joysticks to play.

Blow him up!

Bang and Blast Man is quite simple to play. The two players are placed at opposite corners of a grid, and the aim of the game is to outlive your opponent.

The grid is made up of solid walls and rubble which block your path to your enemy. You clear the rubble by planting bombs, then run away before they explode – be careful you don't get caught in the blast. Your opponent, meanwhile, is blasting towards you.

Beneath the rubble is a wide assortment of different bonuses and penalties which help and hinder your cause. You can increase the range and number of bombs at your disposal, make yourself indestructible for a time, control your bombs by remote control and so on.

Full instructions can be found in BANG.DOC, including a complete rundown of all the controls and icons. Please note that although it states the cost of registering *Bang and Blast Man* is £5, the upgrade now comes on two disks, so MegaGold has been forced to increase the price to £6. Don't say we didn't tell you.

NO PLAYER MANAGER?!

Don't you just love those gremlins that wreck the best-laid plans of mice and men? We don't, because they've once again caused us insurmountable problems with *Player Manager*.

However, we believe we have the problem solved, so keep your eyes peeled for its appearance on next month's disk (touch wood, and all that). It really is worth waiting for, honest.

BACK UP YOUR DISK!

There's no excuse for not backing up your Cover Disk, especially when all you have to do is double-click on CD_BACK.TOS (it's in the BACKUP folder). Once it has loaded, find a blank disk and press [1] to back up your Cover Disk. It's that simple, and will prevent tears at bedtime when you discover you've accidentally destroyed your precious disk in a bizarre gardening accident.

CONTACT

By: Schauzmoll Soft
Machines: All Ataris
Resolution: ST medium or greater
Memory required: 1Mb
Uncompressed size: 280K (source 644K)

Contact is an exclusive release of Christian Ernst's address and phone-book utility. Keep tabs on all your contacts with this easy-to-use and highly configurable program.

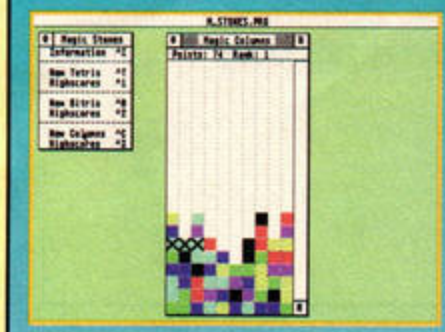
Stay in touch

Nifty features include the ability to segregate your addresses into categories, so you can separate business numbers from those of family or friends. You can easily sort, edit and search your database at any time, and print it in various formats, including as a wallet-sized booklet (see opposite).

Getting started

First, you need to set up *Contact* for your individual needs. This is done via the Setup menu. Select each option in turn and enter your details as requested by the program. When it comes to the Paths option, use the file-selector to find CONTACT.PRG and the CONTACT folder respectively. The other options are largely self-explanatory – press [Help] if you're stumped. The exception is the 'Type List' option – this is where you enter your address categories, such as personal or business.

AND THERE'S MORE



Magic Stones runs on any Atari in any resolution. Excellent stuff.

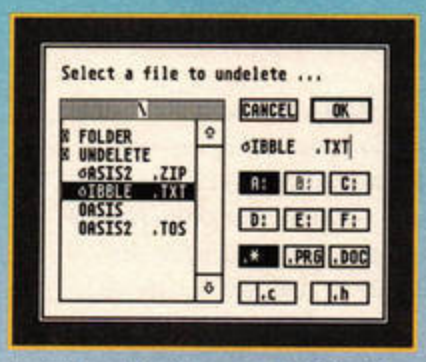
There isn't enough space to cover all this month's Cover Disk programs in detail, but here's a quick rundown of the other marvellous programs:

Magic Stones: Three classic puzzle games combined into one program. Dearchive MAGIC_S.TOS to a blank disk and run MAGIC_S.PRG to play *Tetris, Bitris* – a two-player variant of *Tetris* – and *Columns*. *Magic Stones* can also be run as an Accessory. Uncompressed size: 89K

Bubbles: A simple memory-efficient screensaver designed for STs with TOS 1.62 or lower. Falcon and TOS 2.06 users can install the screensaver, but will have problems running other programs. It's also impossible to switch between low and medium resolution when the program is installed, so beware! Size: 51K

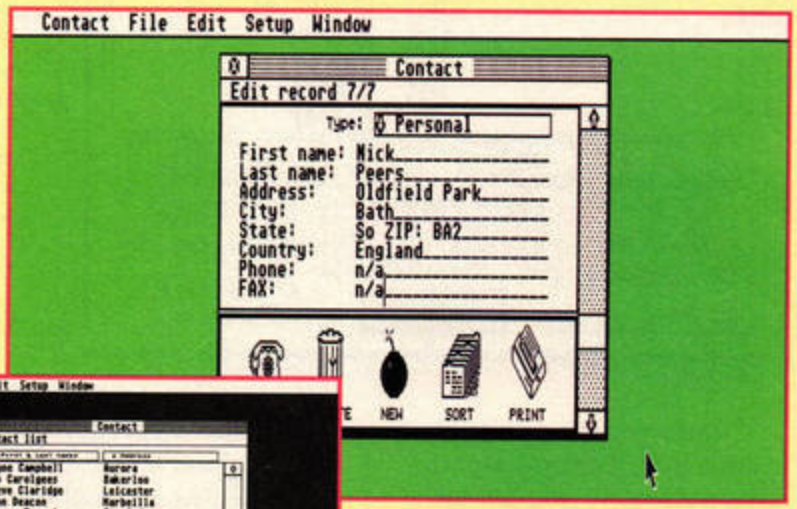
Disk Check 2.3: A utility which tells you all about any floppy disk inserted into drive A, including its capacity and whether the boot sector is executable. It then tests the disk for any errors which might indicate a damaged disk. Runs on all Ataris. Size: 12K

Undelete: Enables you to search for, and attempt to recover, accidentally deleted files. Runs on all pre-TOS 2.06 STs. Uncompressed size: 103K



Undelete makes it easy to find, identify and rescue deleted files.

For more about file recovery, see page 46



All of your addresses are entered and edited using this box.

Select the Contact option to display a list of all your names and addresses.

Next, save your setup using Save Configuration from the File menu. You can now start to enter data using the Editor option from the Window menu. When you have entered all your data, you can view, edit and print the address by selecting the Contact option.

You can also prepare your names and contact details using a text editor. Save them in an ASCII file and import it into *Contact*, where it can be converted into entries the program recognises. This option, coupled with the export option, is very handy if you need to port names and addresses between programs.

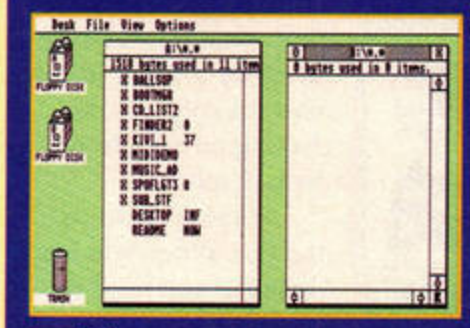
Plus...

One of *Contact's* unique features is its ability to print your addresses as a wallet-sized booklet. You'll need *GDOS* or *SpeedoGDOS* installed for this option, but it's relatively straightforward to set up.

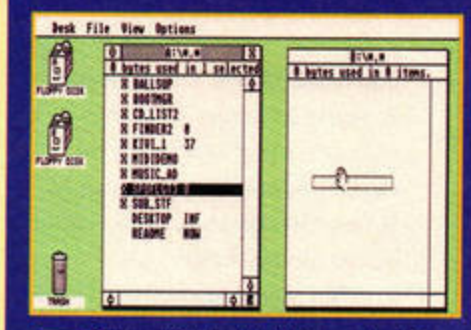
Contact is shareware – read CONTACT.DOC for full registration details. Programmers can decompress SOURCE.TOS on to a hard drive to see how the program was put together, but you may not use any of the code in your own programs with consulting Schauzmoll Soft first.

COVER DISK KNOW-HOW

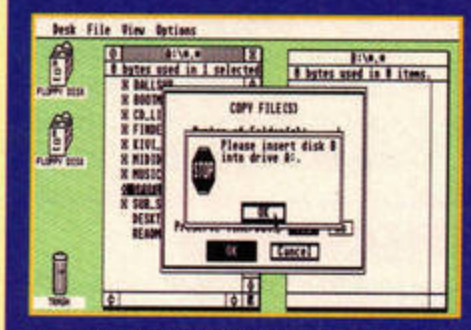
1 Assuming you have a single-drive system, insert your Cover Disk back-up into drive A. Double-click on the drive A icon to access it. Next, double-click on the drive B icon.



2 When prompted, remove the Cover Disk and insert your blank disk into drive A. Click on OK and a separate window should appear with the contents of the disk within it.



3 Next, click and hold down the left mouse button on the file or folder you wish to copy across to your blank disk. Drag the file over to the drive B window before releasing the button.



4 An alert box will tell you to insert disk A (your Cover Disk). Do so, click on OK and follow the on-screen instructions.

5 Just follow the instructions on the screen until the file or folder you wished to copy has been transferred. It'll be displayed in drive B's window. Now you're ready to dearchive your software.

6 Ensure your blank disk is in drive A and double-click on the drive A icon to open up its contents.

7 Double-click on the TOS file to begin decompressing it. A list of files will be displayed as they are decompressed. You'll then be asked to press any key.

8 The relevant folders and files should now appear in drive A's window. To free up more disk space, drag the TOS file over the trashcan icon to delete it.

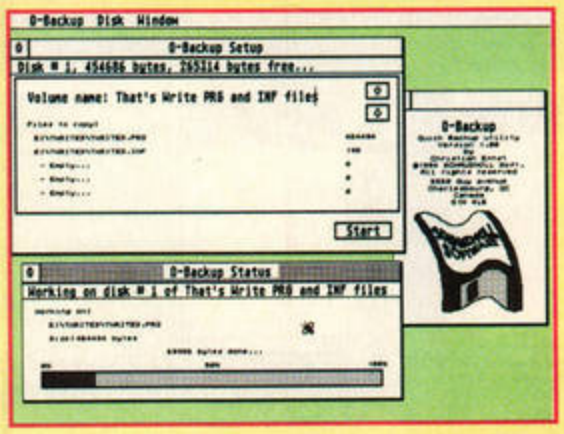
PROBLEMS?

- Write-protect your Cover Disk. Slide the black tab so you can see through the hole.
- Make a backup using the *Back Up* program. Never run anything except *Back Up* directly from the Cover Disk.
- If you have an old STFM and can't read the Cover Disk, you need to upgrade to a double-sided drive.
- If you are having problems with a Cover Disk program, re-read the instructions and any DOC files. If you still have problems, call the Cover Disk Hotline on ☎ 01225 442244 on Wednesday afternoons between 2pm and 6pm only.
- If you can't load, copy or back up your Cover Disk, it may be faulty. Try calling our technical support line on ☎ 0891 715929 (weekdays 10am–12.30pm and 1.30pm–4.30pm). Calls cost 39p per minute cheap rate, 49p at all other times.
- Alternatively, send the disk, a padded self-addressed envelope and two stamps to: *ST FORMAT* July Disk Returns, Tib Plc, Tib House, 11 Edwards Street, Bradford BD4 7BH (if the disk is faulty we will refund the postage). Don't send faulty disks to our Bath or Somerton offices – we don't keep stocks of Cover Disks.
- If you have any other queries, contact the publisher of the hardware or software.

Q-BACKUP

By: Schauzmoll Soft
Machines: All Ataris
Resolution: ST medium or greater
Memory required: 512K
Size: 81K

Back up your files on up to five separate disks. You know it makes sense – the sky might fall at any moment. You can even keep a record of the files you are backing up.



A progress bar tells you how much you've backed up.

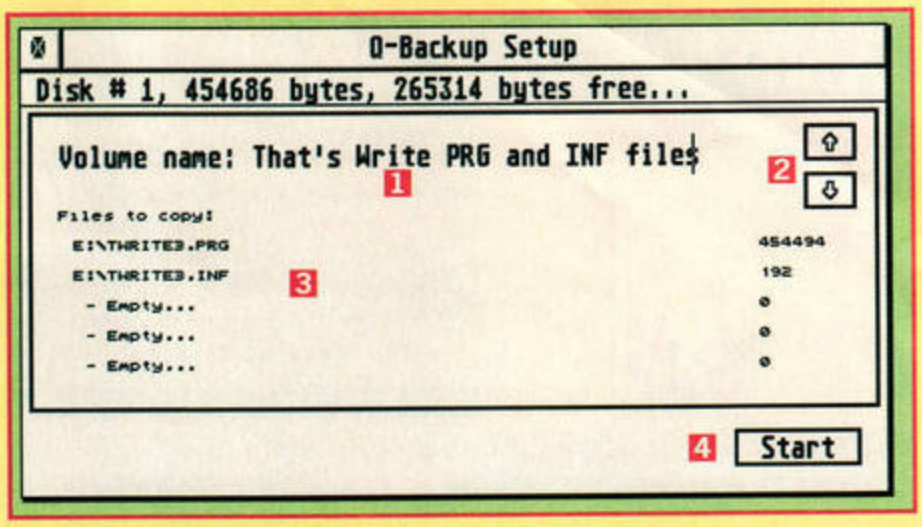
Be sensible

Q-Backup enables you to create multiple backups of specific files, folders and even disks, quickly and easily. You do this by creating volume files which contain the location and name of each of the files you wish to backup. These are then stored to the VOLUMES folder in your QBACKUP folder.

The advantage of this is that once these files have been created, you can quickly and easily create multiple backups of your disks at any time in the future by loading in the relevant volume and clicking on Start to set the ball rolling.

It's easy to set up and use. When you load *Q-Backup* you need to insert a disk into the drive so the program can check the capacity of your disks. You can then press [W] to open the Setup box – see the annotation for instructions. When your changes are complete you can save the details to disk for future use.

One of *Q-Backup's* useful features is its ability to use more than one disk for backing up – each volume can use up to five disks, enabling you to store large groups of files. There's one slight problem, though: *Q-Backup* doesn't check to see whether your files have grown, so subsequent backups may overrun the available disk space.



1 Volume name – click here to alter it.
2 Select which disk (from 1 to 5) your files are to be stored on.
3 Click on each of these to locate the five files you wish to back up to this particular disk.
4 Start the backup.

EXPENSE MANAGER 2

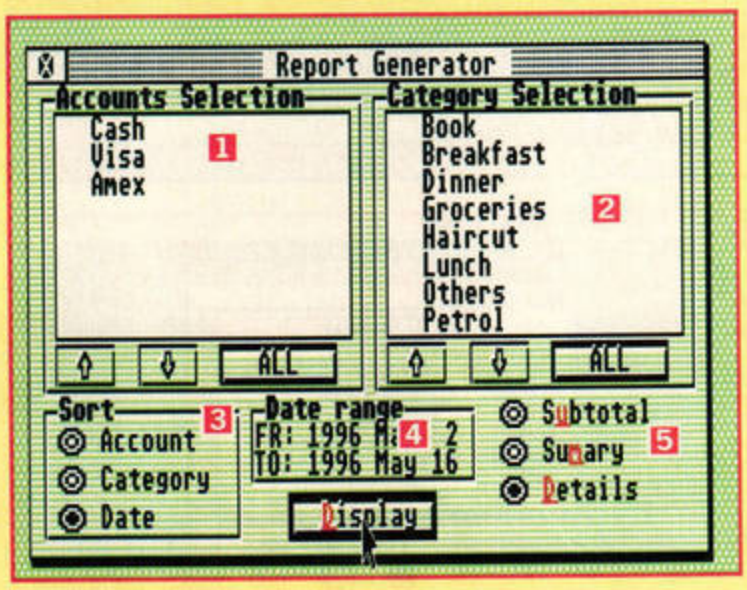
By: William Wong
Machines: All STs (not Falcon compatible)
Resolution: Medium or high
Memory required: 512K
Uncompressed size: 141K

Keep track of your expenses and accounts easily and comprehensively with version 2 of *Probe House Expense Manager.*

Pay as you go

Ever find yourself overwhelmed by all the financial transactions winging their way to and from your various accounts? With *Probe House Expense Manager (PHEM),* you can keep track of your expenses easily and quickly. It can also be used as a limited accounts package.

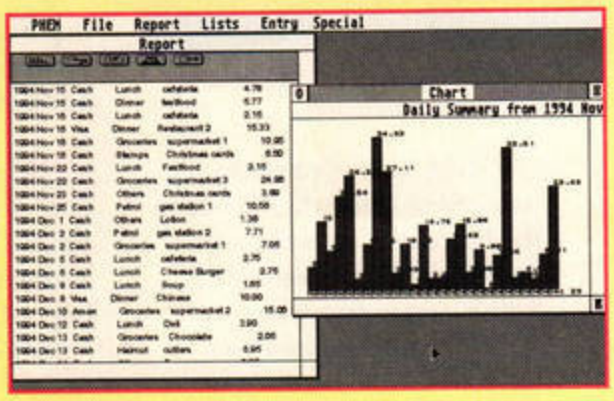
It's straightforward to use. Load in SAMPLE.ACT and you'll be presented with the report generator screen. From here, you use the Lists menu to create, amend or delete the pre-set categories and accounts to suit your individual needs. Once this is done, you can start entering your own transactions using the Entry menu.



1 The various accounts you hold.
2 The categories for your transactions.
3 How the results are to be sorted.
4 The dates from which you wish to examine your account.
5 Defines the kind of report summary you require.

Once you have entered your account details, you can create a variety of different reports using the Report menu. You can get detailed written reports of your accounts sorted by date, category or account, or display your data as a pie or bar chart. These can then be printed (*PHEM* supports *GDOS* and *SpeedoGDOS)* or saved to disk for future reference.

Full instructions for using the program can be found in PHEM2.DOC. Users of *ST Guide* will be pleased to know that on-line help is also available. *stf*



You can display your results in reports or charts.

WE WANT YOUR PROGRAMS

We pay for your software – so if you have anything that's good, original and preferably short that you think deserves to go on *ST FORMAT's* Cover Disk, send it with this form and full documentation to Nick Peers, Cover Disk, *ST FORMAT,* 30 Monmouth Street, Bath, Avon BA1 2BW.

Name _____

Address _____

_____

Daytime phone _____ Program title _____

_____ Total size in K _____

On a separate sheet, explain what the program does and why it's so brilliant.

Remember to: ■ Include on-disk and paper documentation ■ Write your name and address on the disk ■ Use a virus-free disk ■ Keep a copy of your program, contributions are non-returnable ■ Enclose an attractive bribe. Presents for Mary and Paula would be nice... ■ Not that it makes a difference.

Please sign the following declaration: This program is submitted for publication in *ST FORMAT.* It is wholly my own work and I hereby agree to indemnify Future Publishing against any legal action should copyright problems arise.

Signed _____ Date _____

COMPRESSED FILES

We've compressed *Bang and Blast Man, Contact, Magic Stones, PHEM 2* and *Undelete* into single TOS files. To dearchive them, copy the relevant TOS file to your blank disk (see page 7), then re-boot with that disk in drive A. Next, double-click on the TOS file to unpack all the files you need to run the program.

www.stformat.com

THE UPGRADE SHOP TEL 01625 503448

All prices include VAT @ 17.5% but exclude delivery.
Orders can be placed by telephone quoting credit card details or by mail order.
Please make cheques and postal orders payable to "THE UPGRADE SHOP" 1 year warranty on all products unless stated.

MEMORY BONANZA

STe/Mega STe		STFM Marpet XRAM deluxe	
1/2 meg	£7.50	1/2 meg	£32.50
2 meg	£42.50	2 meg	£59.00
4 meg	£82.50	4 meg	£99.00

All kits are supplied with comprehensive fitting instructions, testing software and a *free* disk of useful PD / shareware utilities. Free technical support is available as is a competitively priced fitting service.
Prices shown for memory products only, include delivery.

MONITORS

All monitors include a Tilt and Swivel stand

TUS 14" Mono monitor for ST series without sound £89.00

TUS 14" Mono monitor for ST series with sound £99.00

TUS 14" colour for Falcon (0.28dp SVGA) £229.00

All monitors include appropriate connecting leads

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Fully trained engineers for a reliable repair.
All jobs quoted for individually (no fixed prices).
48 hour turnaround on most machines.
Long 4 months warranty as standard.

We can fit any of the advertised products to your machine for a one off fitting charge of £15.00. This means that if you require say an upgrade and overscan fitted then the charge is only £15.00.

Please ring for an appointment before bringing your machine or call if courier collection is required. Please ensure all parcels collected are adequately packaged.

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TOS 2.06 SPECIAL

TOS 2.06 kits come with full fitting instructions and TOS manual. Both kits allow manual switching between your old and new TOS for full compatibility.

STE SWITCHER
Version 2. Simple solderless installation £47.99

STF/STFM SWITCHER
Version 2. DIY installation £57.99

INTERNAL HIGH DENSITY DISK DRIVE
High density controller module with full instructions £25.00
High density controller and 2Mb disk drive £58.00

SPECIALS
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STE TOS 2.06 + High density module + 2Mb Drive £99.00

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PARTS

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Includes power socket, switch and pedestal - no soldering £32.99

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DELIVERY: Small items under £60 please add £3 p&p. Large items and orders over £60 add £7 courier charge.
Courier pickup for Upgrades and Repairs £7 Opening Hours Monday-Friday 9am-6pm Saturday 9am-2pm.
Technical support available - please call
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Access DELTA

The Upgrade Shop
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MasterCard VISA SWITCH

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SNIPPETS

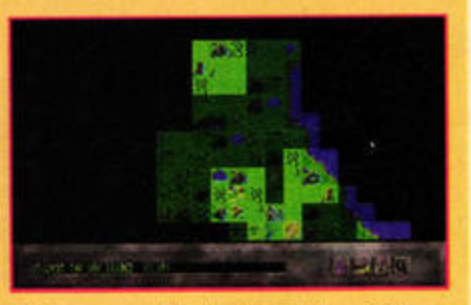
● There is now a conference dedicated to members and potential members of Atari-related user groups on the CIX on-line system. Join the atari.user.gps conference from the CIX prompt, or send a mail message to: agoold or: sidcelery for further details.

● 16/32 Systems has expanded its Atari range by introducing support for the Jaguar console. As well as stocking the latest cartridge and CD-ROM games, 16/32 intends to source hard-to-find bits of hardware such as the CD-ROM unit's memory track cartridge. Call 16/32 on ☎ 01634 710788 or e-mail: nharlow@cix.compulink.co.uk.

● 16/32 Systems will also be stocking a a new German graphics tablet compatible with all Atari machines. The Wacom tablet is fully pressure-sensitive and comes bundled with the *PixArt 3* graphics software package. The full package, complete with Atari drivers, will retail for about £230, or roughly £160 without *PixArt*. Fluctuations in the exchange rate could affect these prices, though. Watch for a review in *ST FORMAT* soon.

PD & shareware

Conquest of Elysium is a new Falcon-only game supported in the UK by InterActive. The unregistered shareware version is slightly limited but still extremely playable. It's available via CIX and 42BBS, presuming you fancy a whopping 1.3Mb download. You can also pick it up from the author's Web page at: http://www.efd.lth.se/~d92jk/coe.html, and it should be available from the usual PD sources (see page 53) by the time you read this. Registration is a mere £13.



Elysium, a small suburb in Wales, right next to where Nick used to live.

Arno Welzel has announced that he no longer has time to continue developing *Thing*, his popular shareware replacement Desktop. All isn't lost though, because the mantle has passed to Thomas Binder, author of the nifty *TOS2GEM* utility. Registrations should still go to Arno until Thomas releases a new version, and UK registrations will continue to be handled by Joe Connor's InterActive service. E-mail him at: jconnor@cix.compulink.co.uk for more information.

STF News...

Frank Charlton crams another two pages of Atari-related developments into, erm, two pages.

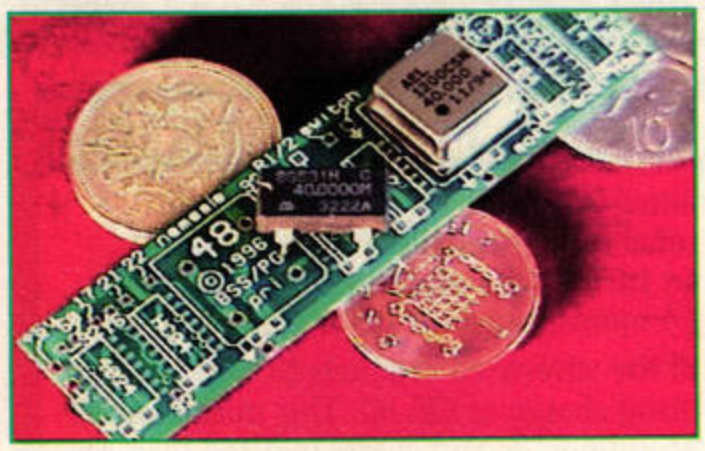
Titan grabs Gribnif

Following the demise of Compo UK (see News, *STF* 83), Titan Designs has announced that it is now the UK distributor of almost all the Gribnif range of software.

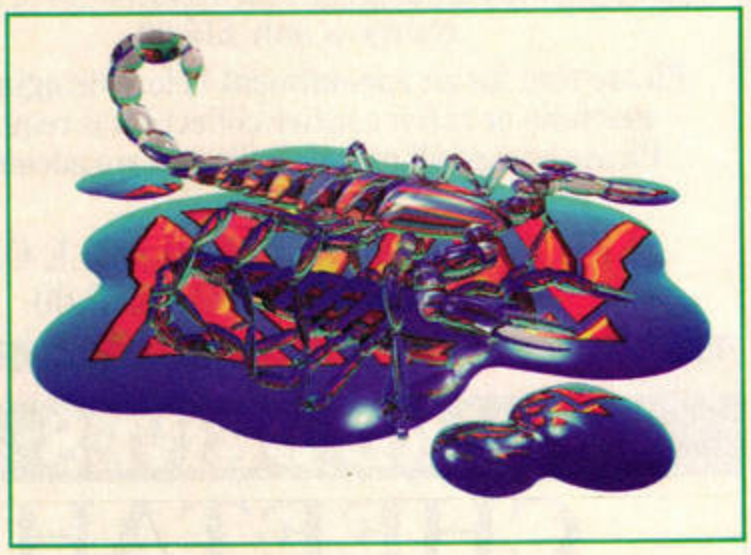
As well as the latest versions of the popular *NeoDesk 4* and *Geneva* multi-tasking system, Gribnif's products include the *STalker 3* comms suite, the *STeno* text editor and the *Arabesque Pro* art package. Titan also has some excellent money-saving bundles, including *NeoDesk 4* and *Geneva* together for £99, a saving of almost £21 on the separate prices.

Brian Stanton – who previously provided e-mail support for Compo – has agreed to continue the support service for Titan, via both the titan.bss conference on CIX and e-mail at: bstanton@cix.compulink.co.uk.

Titan's Nemesis Falcon accelerator is on course for a June release, and had gone into pre-production as we went to press. David Encill also told us that the company is investigating the possibility of an enhanced Nemesis board, boosted to 60MHz, to be released as an upgrade if it proves reliable. Titan is also producing limited-edition *APEX* T-Shirts featuring a stunning Phil Matthews design. Contact Titan Designs on ☎ 0121 6936669 for details.



This early shot of the Nemesis board shows just how compact it is.

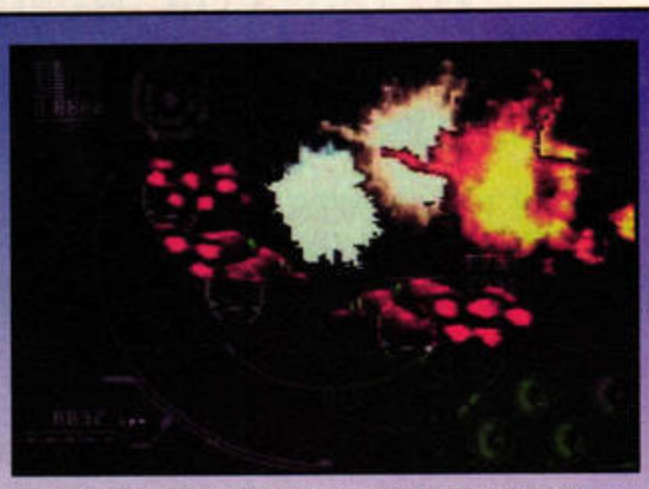


What the fashion-conscious Atari fan is wearing this summer: a cool design on an exclusive T-shirt.

PHASE ZERO

In yet another blow to the lifespan of Atari's Jaguar console, developer Hyper Image has announced that *Phase Zero* won't be released on the 64-bit platform.

Hyper Image's Jeremy Gordon commented on the high level of praise and feedback the team has received: "We are very flattered that people have followed our development so closely, and appreciate the many letters of support we have received over the past few months. Unfortunately *Phase Zero* will not be released on the Jaguar system." Citing Atari's instructions to cease development on the game, Jeremy said that Hyper Image is pursuing projects on the Saturn, PlayStation and *Windows 95* platforms, and that no further Jaguar development is likely.



Phase Zero: another addition to the list of Atari software that never saw the light of day – or the dark of your living room.

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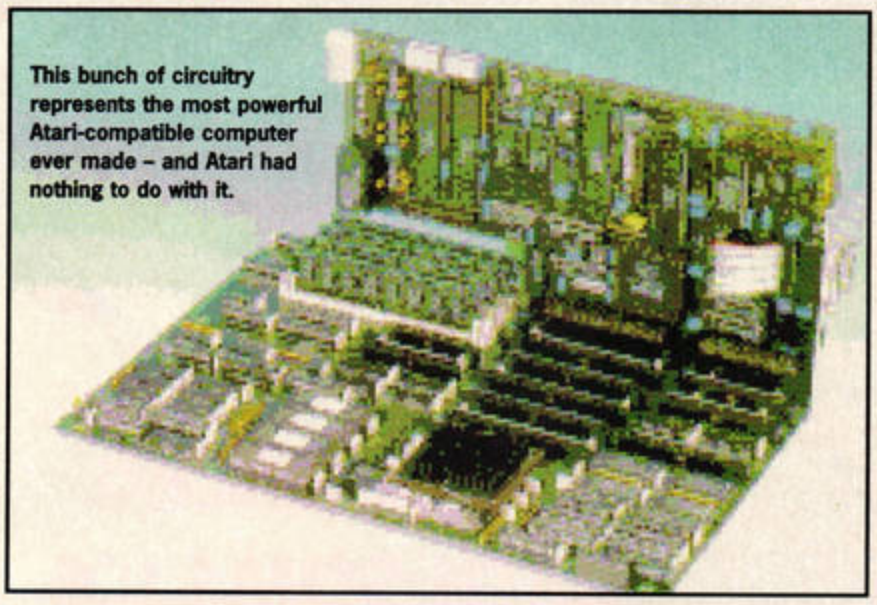
Bigger, faster, harder



This bunch of circuitry represents the most powerful Atari-compatible computer ever made – and Atari had nothing to do with it.

Toad Computers has been appointed official North American distributor for the powerful Atari clones produced in Switzerland by Medusa Computer Systems. The Medusa T-40, which has been available for a while, is built around the Motorola MC68040 processor. This chip is a generation beyond the Falcon's 030.

Medusa recently launched the Medusa T-60 and Hades computers, both of which feature the 68060 CPU, the final chip in Motorola's 68000 series. Both machines have impressive specifications and the Hades takes advantage of the PCI expansion technology used in Apple's new PowerMacs.

Toad is supplying the 'basic' Hades system, which uses the 68040 chip, for $2,499. The 68060 add-on retails at an additional $649. Given that it also contains a 1.3Gb hard drive and an ET4000 graphics card, the Hades is a terrifically powerful piece of kit. Call Toad on +1 410 5446943 or 800 4488623 (US callers only), or check the Medusa home page at: http://www.ee.ethz.ch/~caschwan/medusa.html. As yet there isn't a UK distributor for these machines.

POCKET PALS

Atari may not support the Portfolio any more, but the newly-launched Portfolio Club certainly does.

Users of Atari's tiny DOS-compatible handheld computer, the Portfolio, will be pleased to hear about a new user group catering for your specific needs. The Portfolio Club UK was established by Paul Finch to support the estimated 300 users of the miniature marvel in Europe alone, and offers free membership.

Paul has contacts who can supply Portfolio hardware and upgrades, including memory cards, interfaces and high-density drive units. The group also has access to an extensive software library and can provide information about upgrading your machine, including details of a modification to boost the internal back-up battery life to a staggering 24 hours. For more information, send an SAE to Paul at: 16 Cedars Road, Morden, Surrey SM4 5AB, or e-mail him at: finchp@parliament.uk.

UK show news

Keep up with the latest Atari show news via the Internet.

Latest news on this year's Atari shows is that both are now confirmed. They will take place at the Birmingham Motor Cycle Museum on Saturday 28 September and the Osterley Hotel in Isleworth, Middlesex on Sunday 29 September.

Several major exhibitors have confirmed their bookings, including System Solutions, Titan Designs, HiSoft, FaST Club, Goodman's and The Upgrade Shop. And of course, the *ST FORMAT* team will also be present, so pop along and bestow your gifts of money, sausages and abuse on Nick, Andy, Frank and the others.

We'll be keeping you informed in these pages, and regular news bulletins can also be picked up via e-mail. Send a message to: frank@support.tachyon.co.uk with the subject set to SHOWNEWS for the latest details. There's also a Web site – point *CAB* at: http://www.netkonect.net/tachyon/shows96/. *stf*

SNIPPETS

Programming team Digi Tallis has released a new version of its 3D shoot-'em-up *SubAqua*. It fixes a potential clash with hard drives in the previous version, and should be available from LAPD (☎ 01773 761944) by the time you read this. Work continues on *SubAqua* and the *Doom* clone *KillThings*.

Net news

Jonathan Nott has created a new Web site for everyone seeking information on all aspects of Atari computing and the Internet. The Atari Net Locator is a well-designed site with oodles of pointers to Atari resources scattered across the Net, including Web and FTP sites, e-mail addresses and newsgroups. Check it out at: http://www.walusoft.co.uk/anl/.

The Atari Net Locator: a site you definitely want to add to your *CAB* bookmark list.

Top shareware support outfit InterActive has established a Web presence. Fire up *CAB* and trot along to: http://www.walusoft.co.uk/anl/ANL_IA.HTM for news of the latest registration schemes for lots of popular European shareware, including *CAB* itself.

Toad Computers has a Web site which enables you to keep track of any orders you place with the company. Visit http://www.toad.net/orderstatus.html to check whether your order has been dispatched yet. The service is particularly useful if you're waiting for an out-of-stock item.

Beware of a program on the Internet which isn't all it purports to be. CARPDIEM.ZIP promises to be a Falcon game, but actually installs a hidden program in your Auto folder which can infect your system with a virus. You can't see the program from the Desktop unless you have TOS 2.06 or a replacement Desktop such as *Ease*. If you find this file on an FTP site or BBS, notify the SysOp immediately.

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With Atari Zip Tools.

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Based on a superb 2.4-speed Sony CD-ROM, this is a tremendous value-for-money, award-winning pack.

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The SuperQuad Pack £289

For those that need ultimate speed and performance, this 4.4-speed pack delivers everything required.

Deduct £60 if ICD Link not needed

MUSIC PRODUCTS

New! Making the Most of MIDI is a book with lots of info on using MIDI, inc programming.

Replay16 Supremely accurate 16-bit mono sampler/player for all Atari ST/STe computers. Complete with extensive sampling and sequencing software. Full MIDI support.

Clarity Falcon Direct-to-disk stereo 16-bit sampling inc 44.1KHz and 48KHz rates. Complete software included. Full MIDI support.

StereoMaster The definitive 8-bit stereo sampler with easy-to-use software. Great fun.

Making the Most of MIDI Book	£14.95
Replay16 Sound Sampler - Atari ST/STe	£99
Clarity Falcon Sound Sampler - Falcon	£69
StereoMaster Sound Sampler - Atari ST/STe	£29.95

ENTERPRISE 288 MODEM

Introducing the brand-new Enterprise 288 modem from HiSoft. This small-footprint, V34, 28.8kbps fax modem (Class 1&2) is your perfect companion for super-fast access to bulletin boards, sharing information with your friends and colleagues or exploring the mind-blowing power of the Internet.

The Enterprise 288 modem is CE-compliant and BABT-approved so that you can surf with security. Complete with cable for attaching to your Atari.

Enterprise 288 Modem with lead	£169

CAUTION

Hard Disk Care

Your hard disk is vital to the everyday use of your Atari computer.

It therefore makes sense to look after this essential part of your system and, with two high quality products from Oregon Research, you can ensure problems do not occur or, if they do, you can get back your valuable data.

Diamond Edge optimises your hard disk data and spots problems in advance whilst Diamond Back is the most sophisticated backup program yet. Both Falcon enhanced.

Diamond Edge 2	£49.95
Diamond Back 3	£49.95
Special Pack: Buy both for only	£79.95

OTHER PRODUCTS

Papyrus Gold 3.66 Word Processor	£89.95
Twist 2 Relational Database	£49.95
Atari Works integrated package	£59.95
HiSoft BASIC 2.10 Compiler	£49.95
Devpac 3.10 Assembler	£49.95
Lattice C 5.60 Compiler	£79.95
FirST BASIC with full manual	£12.95
TruePaint + TrueImage Pack	£29.95
ProFlight Tornado Simulator	£12.95

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Mind your own business

Your ST is the perfect companion for your business activities, be they personal or professional. Peter Crush calculates your profits.

Do you detest your job, dread that long journey to work and dream of being your own boss? Working from home could be the answer.

Even people who aren't self-employed often take work home, and we're not just talking about high-powered executives. For example, students need to produce projects and essays and teenagers are expected to hand in neat homework. For most people this could mean spending £1,500–2,000 to equip a home office, but the good news is that Atari users can set themselves up for much less – and still get results to rival those from more expensive computers. In the following pages we'll show you exactly why your ST is the perfect companion for your business activities.

Working in SoHo

Your ST isn't just for games, it's capable of doing almost anything you want it to. SoHo, which stands for Small office/Home office, is the latest smart acronym to drip off the computer industry's silvery advertising tongues. The SoHo market is growing rapidly – just think of the number of people you know who already work for themselves, or wish they did.

A computer is now crucial to every business, and your ST could be the centre of your own empire. You don't have to be a budding Richard Branson, though – your home office can help run your personal or family finances, even if you don't want to make a million.

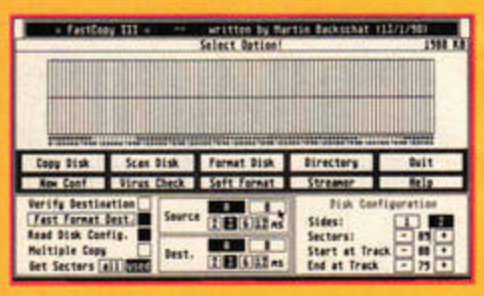
It's the business

Okay, so what else do you need to establish a swish home office? We'll take you right through it all and tell you how to get the appropriate hardware and software at knockdown prices.

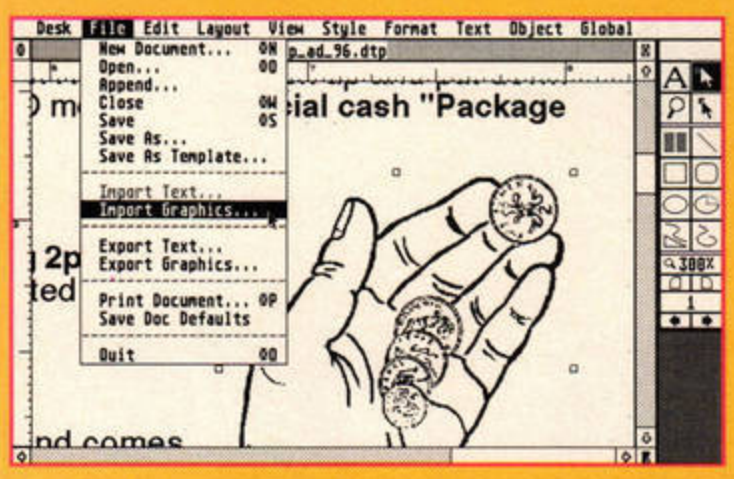
For those not seeking financial gain we show you how to spruce up your image and run your personal finances. And if you've never thought about making a few extra bob by working from home, we even suggest some money-making ideas.

Bright ideas

Before you can start a business, you must decide what you want to do. Here are some ideas.



FastCopy 3 is an ideal disk copying tool if you run a PD service. You can specify the number of floppies you want to duplicate and it's much faster than using the Desktop's copying facilities.



PageStream is available very cheaply now, and it's perfect for producing presentation material for any business.

What kind of business can you run with your ST? The answer is probably any kind you fancy, because despite its age, the ST is one of the most versatile computers going. Thanks to its built-in expansion capabilities, you can connect all kinds of modern equipment to it, including scanners, modems, CD-ROM drives, mass storage devices and MIDI equipment. So, here are a few business ideas.

● **A mail order business:** Running any mail order enterprise (such as a PD library, for example) could employ many of your ST's abilities. You could duplicate the disks using the ace copying facilities of *FastCopy 3* or *HCopy*, print the labels using any of the many PD labelling utilities and keep a customer database on your ST.

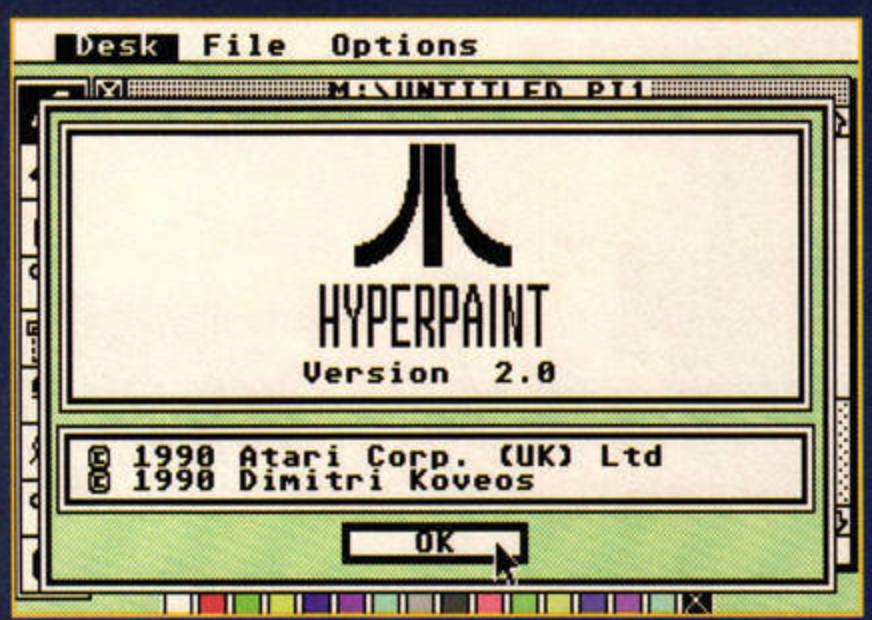
● **Artwork service:** Or how about running an art and design service? Any small organisation, such as a local club, parish church or one-person business, could require cards, posters or newsletters. Many such bodies lack any computing equipment of their own, and that's where you come in, providing for all their graphical needs. You'll need nothing more than a simple word processor, a cheap desktop publishing program and some art software.

● **Musical services:** If you have a MIDI keyboard and a modicum of musical skill, how about using your ST to produce jingles and incidental music for local performers? You might be able to persuade your neighbourhood juggler or magician to commission an original piece of your music to use in their act. Local drama groups might also be in the market for such a service, as could disc jockeys. For details of all the ins and outs of producing and recording music on your Atari, see the Digital Dreams feature in issue 79.

The best business is the one you think of yourself. Look for a gap in the market.

● **Be original:** The best business is the one you think of yourself, so look for a gap in the market. There are no rules and no limits, although it's always good to make a profit. How about offering a genealogy service using *Family Roots 2* (*STF* 63, 83%)? Or a scanning service for other computer users, using the hardware and software described in issue 75's Scan It feature?

DTP DESIGNS



Hyperpaint works in all ST resolutions and couldn't be much cheaper to buy.

You'll a need desktop publishing package to produce your business brochures and so on. Here are some of the most affordable options.

● Calamus 1.09n (*STF* 30, 90%)
£59.99, First Computer Centre
☎ 0113 2319444
For desktop publishing, *Calamus* is the perfect introductory program. It's well supported, uses vector fonts to produce superb quality documents and, once you've worked out its interface, is a dream to use.

● PageStream 2.2 SE
(*STF* 81, 91%)
$39, The Computer Dungeon
☎ +1 708 5477085
The most 'modern' of the bunch in terms of look and feel, *PageStream* is capable of quite professional results. You'll have to order it from the States, but it's worth the hassle. It requires at least 2Mb of RAM to work well.

● TextStyle 1.1 (*STF* 80, 88%)
£19.95, FaST Club
☎ 0115 9455250
Not a real DTP program, but more useful in some respects. It produces fancy text that can be saved as an IMG file and imported into any art or DTP program. It's very handy for the designer on a tight budget.

● Hyperpaint 2
£1.95, Goodman's PDL
☎ 01782 335650
Originally released by Atari, Hyperpaint may not be the most feature-packed paint program, but it's very easy to use and produces good results. Goodman's has a supply of these, complete with manual, for just £1.95 plus postage. What are you waiting for?

Sales

If you don't have customers, you aren't in business. Keep track of them with an ST database.

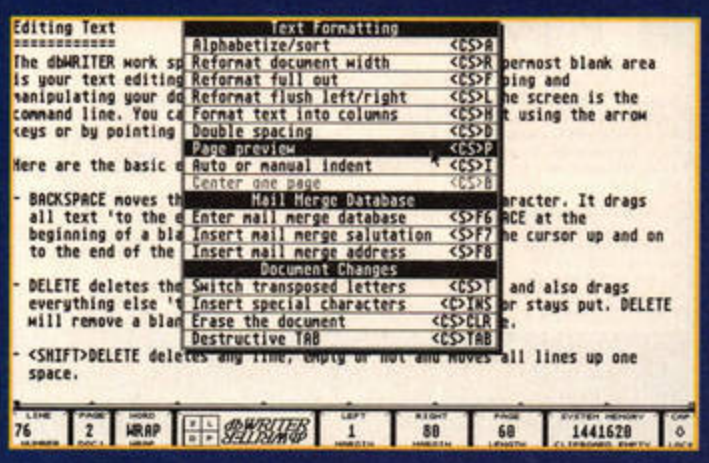
The exciting side of a business is the razzmatazz of producing your product, advertisements and promotional material. That's fine, but every business has to have customers, so you must attend to the mundane but essential process of keeping tabs on your punters. And that's where a database comes in, especially those that can be integrated with your word processor for mail merges.

In the old days firms used card indexes, but now everyone has a database. There are plenty to choose from, ranging from simple PD databases to upmarket programs such as *Twist 3*. They all help you maintain lists of customers, products in stock and so on.

The beauty of databases is that when somebody moves house or changes their phone number, you can neatly correct their entry on screen and store it all on disk. Some more complex database programs, such as *Twist*, enable you to input numbers and perform calculations as well. For example, you could enter the value of each of the items you sell, and the number in stock, to calculate the total value of the goods in your storeroom.

MAILMERGE AND DATABASES

Here's a round-up of the packages available, including a number of shareware packages which support mail merge.



We keep mentioning *DB Writer* because the editor really likes it. Despite that, it's actually quite good.

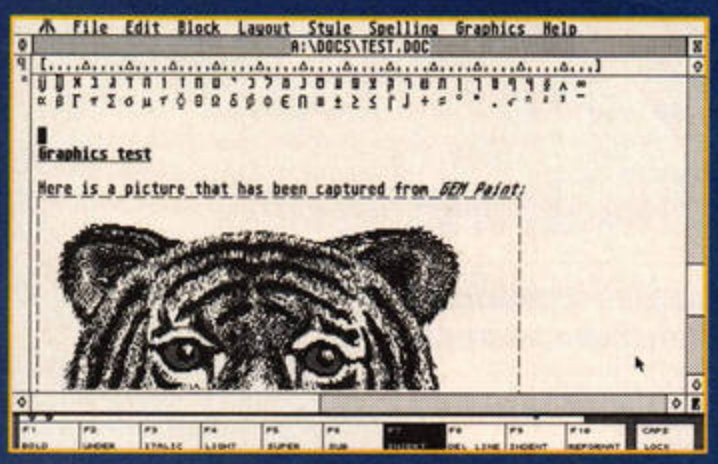
● DB Writer
Shareware, Goodman's PDL
The good thing about shareware programs is that you can try before you buy. As well as being a well-featured word processor, *DB Writer* is ideal for mail merge – you can write a standard letter, then send personalised copies to the people on your database.

We did all the twisting jokes in the full review, and won't be repeating them. Unless you twist our arm, that is.

● Twist 3 (*STF* 78, 90%)
£89.95, HiSoft ☎ 01525 718181
The best and most modern database for your Atari. It's fast, has a snazzy interface and is very easy to use. It's a relational database, so you can link your various data files, and *Twist* will cope with anything you throw at it. It's just lovely.

AtariWorks provides everything you need for serious business use.

● AtariWorks (*STF* 60, 87%)
£99.95, HiSoft, ☎ 01525 718181
This integrated package provides a word processor, a database and a spreadsheet. You can exchange data files between its various components and is ideal for business use, especially at its current price. It does, however, need 2Mb of RAM.



First Word Plus takes us all back to the days when ST software was a bit spartan-looking.

● First Word Plus (*STF* 60, 85%)
This clear and easy-to-use word processor was the commercial follow-up to the PD *1st Word* and has many satisfied users. It can do mail merge, which is explained in a detailed printed manual. If you can find a copy – it's no longer readily available – it might be a good choice.

Accounts

Look after the pennies and the pounds will take care of themselves – as will the bills.

A business should be fun to run – if you don't enjoy it nobody else will either, and it won't thrive. But fun aside, you mustn't forget that important 'bottom line'. Profit and loss shouldn't be the sole focus of your business life, but without it a business won't get far. So, you will need financial data to check the health of your fledgling firm.

There are three aspects to good financial management:

● **The actual accounting nuts and bolts:** You need to know who owes you what, manage your cash flow and be able to prepare your tax returns.

● **Graphical representation of information:** Presenting your data visually enables you to make decisions more easily and convince your bank manager that your business plans are sound.

● **Good communication:** A word processor is essential for keeping your important customers and contacts up to date. If nothing else, you'll need it to send out bills.

Luckily for us, there are programs for your Atari that fulfil all these requirements and as before, you don't need to be running a business to use them. Everyone needs to keep a check on their cheques and write the odd letter, so let's look into the Atari-compatible accounting ledgers.

PROCESS THOSE WORDS

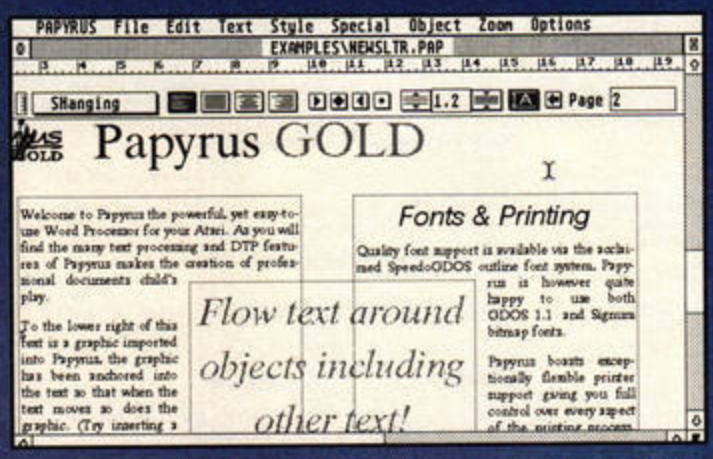
Writing and word processing is an essential part of any business, and you'll need a word processor to produce your literature and chase bad debts. You probably already have one, but if not, here are some suggestions.

● 1st Word (*STF* 60, 80%)
FaST Club ☎ 0115 9455250
One of the first word processors for the ST, it was originally bundled with every one sold. Fully GEM-based, it is fine for simple writing tasks but lacks many of the features we've become accustomed to in more modern products. It works on a 512K machine, though.

● DB Writer (*STF* 60, 89%)
Goodman's PDL ☎ 01782 335650
Although it's PD, this word processor has many useful features, including a nifty mail-merge facility. It isn't quite as standard or easy to learn as some, but once mastered, *DB Writer* will reward its users and it could be ideal for business use.

● Papyrus Gold (*STF* 63, 91%)
£129, HiSoft ☎ 01525 718181
At the other end of the scale to these budget word processors, *Papyrus* is the most advanced program of its type. Rivalling even some Apple Mac software, it's a word processor that's almost a DTP program. It's currently at version 3, and we're all looking forward to version 4 expectantly.

If you want a detailed assessment of almost every ST word processor, dig out a copy of issue 60. You'll also find everything you could possibly want to know about printing in the Put it on Paper feature in issue 74.



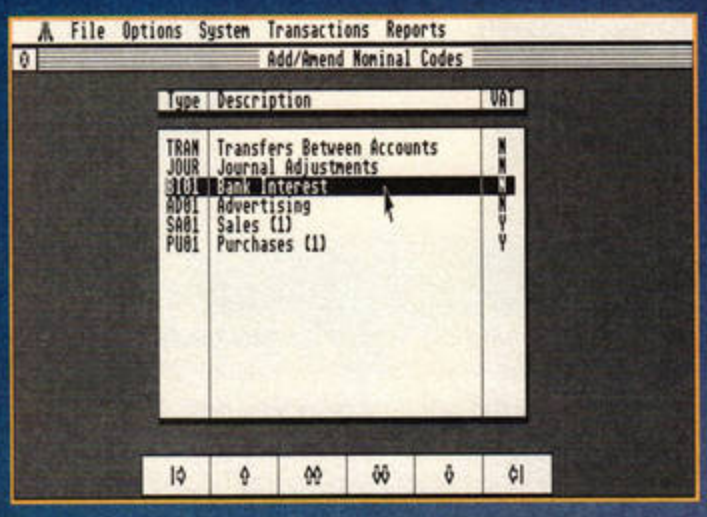
If every ST application was as slick, smooth and sophisticated as *Papyrus*, life would be wonderful.

ACCOUNTS PACKAGES

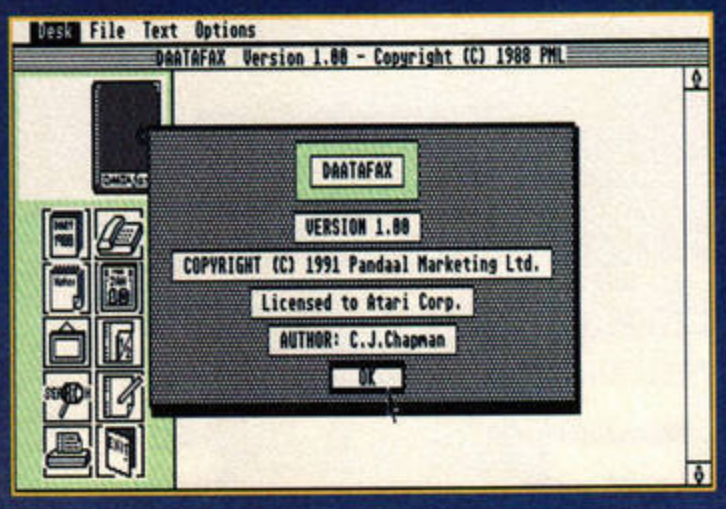
These software packages are ideal for handling your financial matters, be they personal or professional.

● System 3 (*STF* 11, 90%)
Digita no longer supplies or supports this program, but if you can locate a copy you'll get an excellent accounts package that will create smart invoices, statements and reports for your small business. It's just what you need to keep your financial affairs under control.

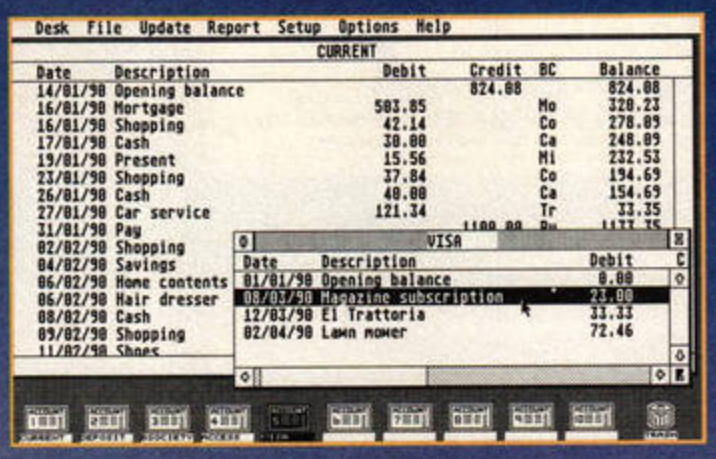
● Personal Finance Manager
£9.95, Goodman's PDL
☎ 01782 335650
This program was one of the popular Atari productivity packs. They were good value back then, and are even better value now. Snap up a copy, because this kind of software is thin on the ground.



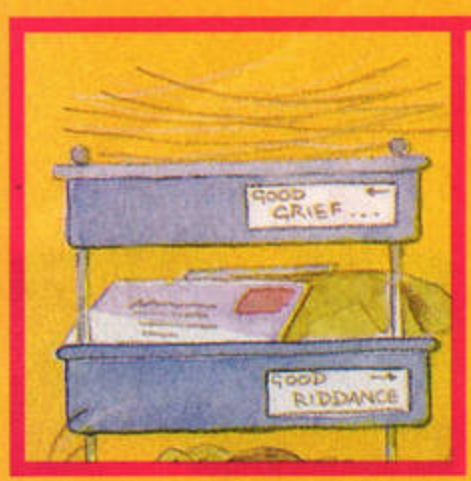
If you can find a copy of *System 3* you'll have an efficient means of running your own firm very cost-effectively.



The *Personal Finance* pack includes *DATAFAX*, a utility for address management.

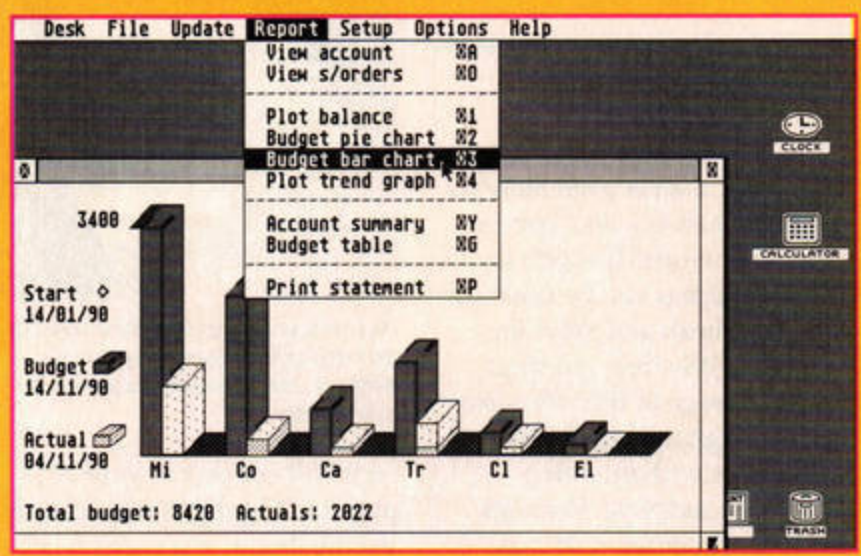


Manage your money in a most magnificent manner. Manna from heaven, in fact.

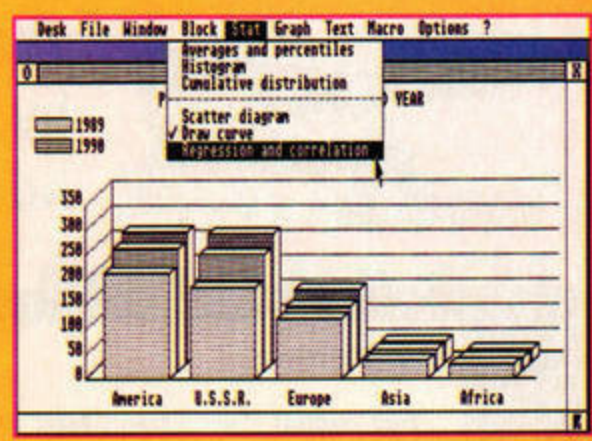


Public Relations

You can say anything with words, you can do anything with numbers. Here's how.



Graph is on this month's Subscriber's Wonder Disk.



K-Spread was given away on Cover Disk 36.

You have to promote your business if you want it to prosper. Part of that job is to present facts and figures in the best possible light, an art all on its own. If you like to fiddle the figures – sorry, present the underlying trends – there are ST programs a-plenty to play with.

Economise

Here's a spin any spin doctor would be proud of: four ways of getting business software on the cheap.

When the ST first appeared, such software was quite dear and even today the top-class programs, such as *Papyrus*, cost over £100. Luckily for us, now that STs are no longer being produced, there's quite a lot of excellent and once expensive software available at discount prices.

For instance, *AtariWorks* can be picked up from First Computer Centre (☎ 0113 239444) for £49.95, and some of Atari's productivity software, including *Personal Finance Manager*, is on sale at Goodmans (☎ 01782 335650) for just £9.95. Look through the adverts in *ST FORMAT*, but don't dally, because supplies will run out and such programs are unlikely to be produced again.

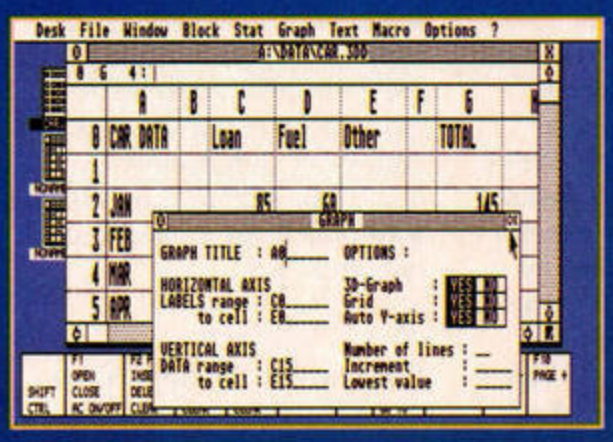
Cover Disk programs are even cheaper. You'll find useful utilities on almost every one, plus some full packages, including *Write ON* (*STF* 33) and *HyperPaint* (*STF* 54). We also gave you *Wordflair*, another integrated package, on Cover Disk 52, and *K-Spread 2*, a spreadsheet, on Cover Disk 36.

Another source of free software is the public domain. You only have to flick through the magazine to find plenty of ads for PD and shareware libraries, and all the major ones are listed in the Directory on page 53. The FaST Club's *Starter Pack* is great value at just £5.95 for five disks containing *1st Word*, a database and lots of other stuff. Call ☎ 0115 9455250 for details.

Finally, you can buy secondhand software for just a few quid per title from private sellers. Keep an eye on the Reader Ads page, or advertise in its Wanted section. Check that you're getting the full package and not a pirated program. You're unlikely to get support from the software house if you aren't the original buyer, so be prepared to work it all out yourself.

As you can see, there are plenty of bargains to be had. You'll also be able to pick up plenty of discount software at the forthcoming Atari shows being organised by Mike Goodman, so start planning your trip now!

SPREADSHEETS AND CHARTS



3D Calc Plus provides multiple levels, enabling you to interconnect all your spreadsheets.

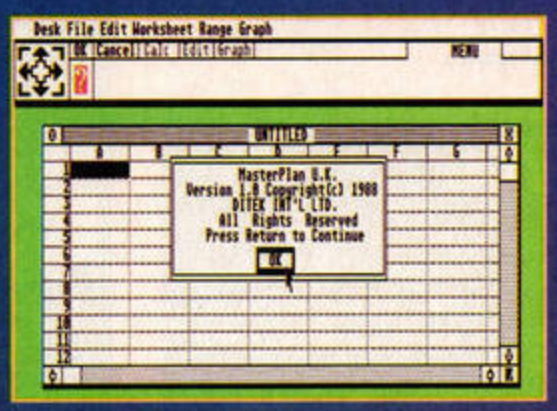
AtariWorks provides for almost all your business needs. It can integrate graphs and charts into other documents, too.

● 3D Calc Plus (*STF* 61, 87%)
£24.95, FaST Club
☎ 0115 9455250
This program is ideal for fiddling with figures because it contains all the formulae and functions a statistician could desire. It comes with a detailed manual, but only runs in mono.

● MasterPlan
£14.95 Goodman's PDL
☎ 01782 335650
MasterPlan is another spreadsheet program, originally released by Ditek. Mike Goodman has recently secured a supply of these at a knock-down price. It comes with a big printed manual and looks good – watch out for the full review soon.

● AtariWorks (*STF* 60, 87%)
£99.95, HiSoft, ☎ 01525 718181
Why has *AtariWorks* cropped up again? Because it's an integrated package. In addition to providing good word processing facilities, it can also produce graphs and charts, combining them in the same documents if required. It's also compatible with *GDOS*, enabling you to use several fonts in a document.

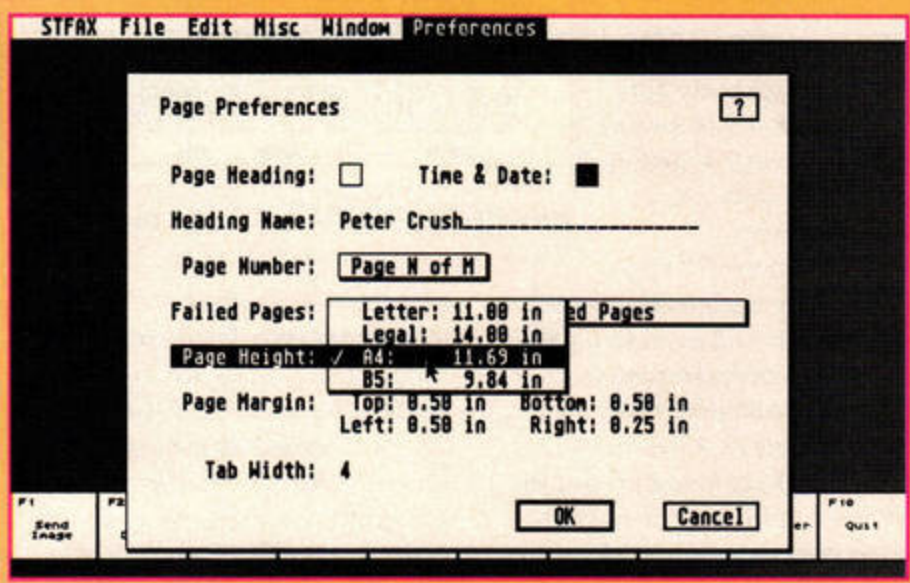
● Hyperchart (*STF* 12, 90%)
£9.95, Goodman's PDL
☎ 01782 335650,
Released by Atari, this program originally cost £129.99! It uses clever programming to produce stunning 3D charts and graphs in full colour on a range of output devices. You can even produce 35mm slides if you are willing to send the file to a bureau.



So what's the *MasterPlan*, professor?

Technical

There's no point doing everything by hand – make your ST, and its add-ons, take the strain.



STraightFAX 2 makes it very easy to send faxes from your ST. It can even send graphical pages created by *PageStream* to fax machines anywhere in the world.

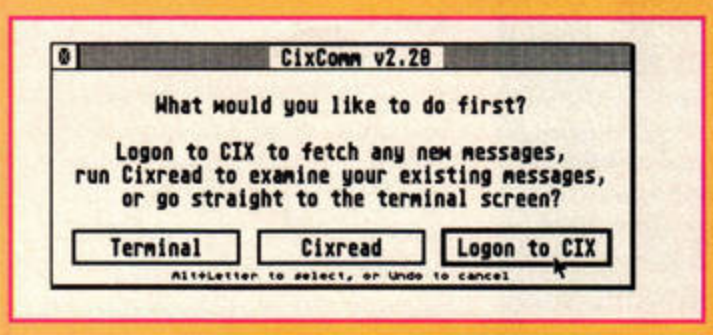
Most modern businesses are almost totally dependant on technology. There is lots of extra hardware you can hook up to your ST, so here's a quick look at what you'll need for a modern office setup.

Communication

You're certainly going to need a phone, and you ought to consider getting a fax modem, too. It links your ST to the telephone system and enables you to send and receive faxes and e-mail. It's all done via software, so if you buy a modem make sure you get the correct ST software to control it.

You will need an external modem, not the internal sort, which can only be fitted to PCs and Macs. Supra makes a good range – contact First Computer Centre (☎ 0113 231944) for details. We've looked at many modems in *ST FORMAT*, so look back through previous issues for plenty of reviews.

STraightFAX 2 is the best-known fax software for the ST. It enables you to prepare your text on your computer and send it off to any fax machine in the world. You will need to leave your ST permanently switched on to receive faxes, so this setup does have some drawbacks compared to a 'real' fax machine. Nevertheless, it's great if you only want to send faxes, which is often substantially cheaper than writing or phoning.



You can use on-line services such as CIX to send and receive e-mail, exchange data, and keep up to date.

E-mail it

Electronic mail is even more modern than fax, and you can write to anyone else with an e-mail address via the Internet. It's fast, cheap and ideal for business. Whether you send your message to Bath, Bombay or Birmingham, you know it will arrive without delay. When the recipient next logs on to the Internet your message will be waiting there.

Opening an account with a service provider is getting cheaper all the time: AOL is only £5.95 per month, and CompuServe is £6.50 per month. See issue 81's Hitch a Lift into Cyberspace feature for more information.

Put it on paper

It's no good having fancy software if you can't print out your letters or invoices, so invest in a good printer. We've always found Hewlett Packard printers a good bet – you can pick up a colour DeskJet for under £250 and it will work with most ST software. A budget laser printer will cost about £500. Hewlett Packard and Brother both have extensive ranges – look for reviews in previous issues. Whatever make you buy, make sure the printer has a parallel interface, so it will connect to your ST, and don't buy a Windows-only printer, because it won't work with your Atari.

You must have a printer. Most inkjets will give you colour output with the right software, but laser printers provide better print quality.

Other equipment

Although your business activities will be handled by your ST, there may be occasions when you need to deal with other computers. For instance, you might want to exchange text files with a customer with a Mac or PC. This whole subject was covered in depth in the Alien Worlds feature in issue 83. Likewise, scanners were dealt with in issue 75, and if you want to know all about CD-ROM drives, check out issue 72.

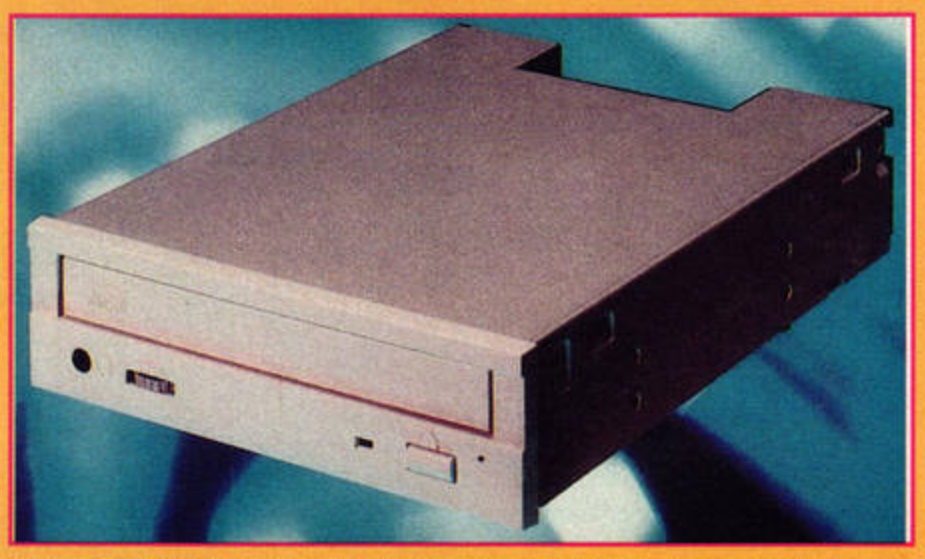
And finally

Good luck with your business ventures, and when you buy your first Roller, remember who helped you set things up. We accept cheques, tickets for foreign holidays and houses in the South of France... *stf*

WEAVE YOUR WEB

You might even set up a World Wide Web home page to advertise your services. This is the ultimate use of high technology.

On-line services such as CompuServe often give subscribers a small amount of free space within which to set up their own Web site. Designing and producing Web pages was covered in depth in issues 78–80. Once you've digested these tutorials, you too can add a Web address to your ads.



Adding a CD-ROM drive to your ST gives you access to budget software compilations on CD-ROM and vast collections of fonts – see page 24.

345 6000

SCANNER

NEW!!!
Artec Colour Scanner
£399
COMPLETE WITH CARD CABLE AND SOFTWARE TO ENABLE YOU TO CONNECT TO A PC OR MACINTOSH COMPUTER

FOR ATARI COMPUTERS WITH SCSI CONTROLLER (PLEASE PHONE).

EXTERNAL CD ROM (SCSI) FOR ATARI WITH FREE!!! TOP LINK

Double Speed £179
Quad Speed £239
Six Speed ..... £POA

3 BUTTON FOR ALL ATARI COMPUTERS £10

TOP LINK £59

True SCSI II controller for your ATARI, allows you to connect H-Disk, SyQuest, CD Roms etc.

EXTERNAL CASE WITH 45 WATT POWER SUPPLY £59

MONO SCANNER £99

64 greyscale mono scanner for all Atari computers

TRACKBALL FOR ST AND FALCON 030 ..... £29

EXTERNAL FLOPPY £59.95

1MB for all Atari

MONITORS

Mono 3 ..... £119
Basic Colour £199
Microvitek 1438 ..... £259
Samsung 15" £319
Samsung 17" £599
Samsung 20" ..... £POA

ATARI COMPUTERS

1040STE £199
520STE £169
520STFM £139

Nobody Undersells US! THIS SUMMER

ATARI ST STFM MARPET RAM CARDS

1/2-1MB Ram £29
1MB-2MB Ram £73
2MB-4MB Ram £99
Marpet Card 0MB £15

ATARI STE RAM

1/2MB £6
2MB £40
4MB £80
8MB £339

FALCON MEMORY

4MB £99
14MB £269

ACCELERATORS

NEW FALCON 040
0MB £499
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16MB £799
32MB £999

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Increases the performance of your machine when adding these FPU's.
Suitable for all FALCONS
28MHz (PLCC) £24
33MHz (PLCC) £39
40MHz (PLCC) £79
50MHz (PGA) £89

BLANK DISKS 10 FOR only £3

WE ALSO STOCK A RANGE OF APPLE, PC & AMIGA COMPUTERS PHONE FOR DETAILS

EXTERNAL SCSI HARD DISK with 45W PSU

FOR ALL ATARI COMPUTERS
100MB £169
540MB £229
850MB £269
1GIG £329
2/4/9GIG ..... £POA
TOP LINK £59

SPECIAL OFFER 2.5" DRIVES FOR FALCON 030

32MB £30
60MB £59
80MB £69
120MB £89
340MB £139
510MB £199
850MB £399

3.5" HARD DRIVES

	IDE	SCSI
100MB	£79	£39
340MB	£99	£119
420MB	£105	£129
540MB	£139	£169
810MB	£189	£229
1GIG	£249	£229

100MB ZIP DRIVE ... £199

SYQUEST DRIVES

	Int.	Ext.
EZ135	£149	£189
105MB	£229	£279
200MB	£339	£389
270MB	£349	£399

Both the Zip & SyQuest drives need SCSI controller on all Atari computers.

We want your business!
We will match or beat any genuine quoted price.

FALCON MK II

Falcon MKII 4MB £799
Falcon MKII 14MB £1599
Falcon MKII 14MB Internal 500M £1999
Cubase Audio £699
Monitor ..... from £99

Order now to avoid disappointment

Finance and leasing facilities are available to personal and business users (subject to status, please phone for details).

ACCESSORIES

Atari PSU £34.95
Atari Internal Floppy Drive £30.95
Falcon Internal Floppy Drive £45.00
2.5" Hard Disk Cable £10.00
2.5" to 3.5" Hard Disk Cable Kit ... £15.00
Parallel Printer Cable £6.00
Atari VGA Adaptor £15.00
Atari Trackball £35.00
Auto Joystick Switch £15.00
Mouse Mats £2.00

80 WATT SPEAKERS £39.99
AIWA SPEAKERS £55.00
AIWA ACD 300 CD ROM £159.00

Gasteiner

DELIVERY CHARGES
- All prices INCLUDE VAT • Small consumables and software items under the value of £59 please add £3.50 P&P • Other items except lasers, next day courier service, £10 per box • Offshore and Highlands, please call for a quotation.
- **In addition we offer the following express services:**
  Saturday delivery – normal rate plus £15 per box
  Morning, next day – normal rate plus £10 per box
- E&OE • Prices are subject to change without prior notice
- All trademarks are acknowledged

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Reno CD-ROM drive

Now you can have a portable CD player and a CD-ROM drive, all in one neat bundle.

The Reno CD-ROM drive: a handy add-on that doubles as a portable CD player.

Adding a CD-ROM drive to your ST is easy enough, but it'll be hooked up permanently. Wouldn't it be great if you could buy a unit that doubled as an portable CD player, so you could listen to your albums as well? Well, now you can, thanks to Gasteiner's latest gadget, the Reno portable CD-ROM drive.

Mid-grey in colour, the Reno unit is very smoothly styled and has small control buttons neatly recessed on the top panel. When you press the release catch the lid hinges up so you can pop in a CD; the other buttons are the usual Start/Stop, Fast Forward, Reverse and so on. Four AA batteries power the unit when you're using it on the move.

The unit also has an additional battery compartment that plugs on to the rear of the player. This holds eight AA-size cells and is used when the drive is connected to the computer. You can also power it via the supplied mains adaptor. There's a small latching SCSI2 output port at the rear of the drive; Gasteiner provides an adaptor so this can be connected to a standard SCSI lead.

This is the only portable all-in-one package we know of, and it isn't bad.

Music, please

Using the Reno drive as an audio CD player is easy enough – just put some batteries in, press play and voila, clear stereo sound via the smart mini headphones. You can use the rotary control knob to adjust the volume and the audio quality is good. You can also connect the player to an external amplifier or hi-fi system, and an appropriate lead is supplied.

You'll need a SCSI interface to connect the drive to your ST. If you have a Falcon, there's a SCSI port on its rear, but ST owners will have to buy a DMA-to-SCSI adaptor, such as Gasteiner's Toplink or System Solution's Translator. These cost about £50–60.

If you already have a SCSI hard drive connected to your ST, all you need is an extension SCSI lead to link the two drives together. Make sure the SCSI device numbers are different – the Reno drive has a small switch so you can alter this if necessary.

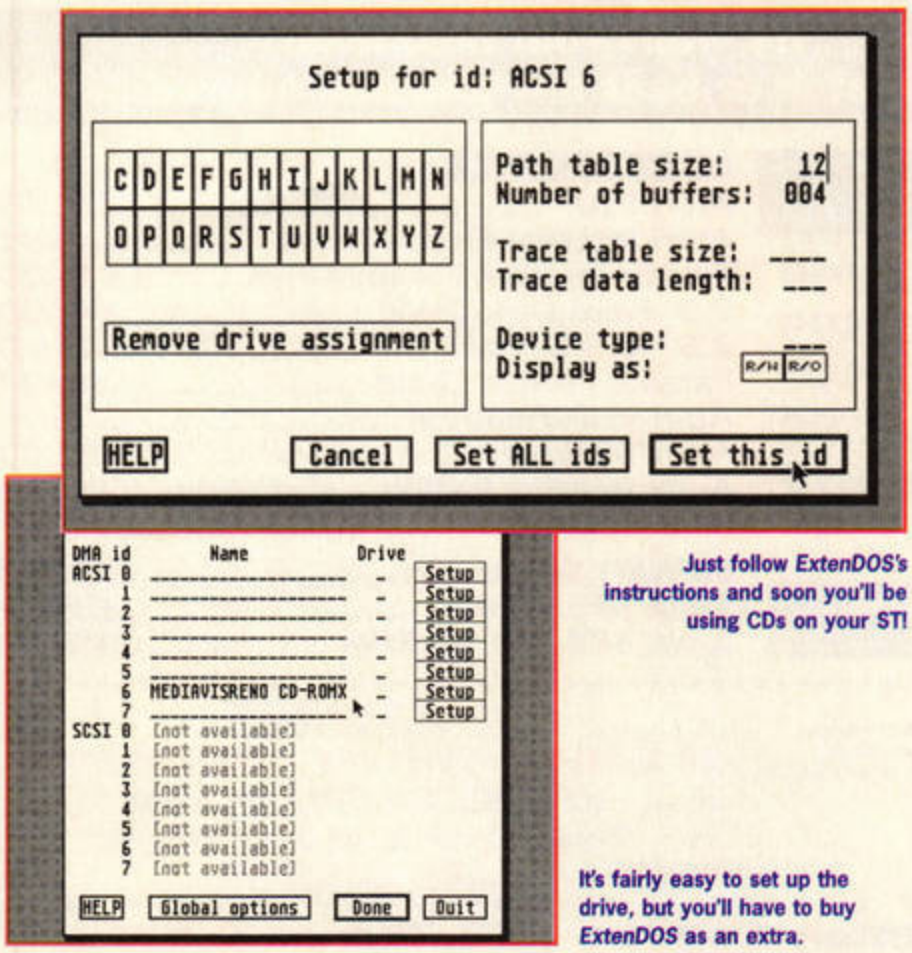
The other thing you will need is *ExtenDOS Pro* (*STF* 82, 88%), the best Atari driver utility for CD-ROM devices. The latest version costs £39.95, although System Solutions also offers a cheaper version with fewer features.

Once everything is connected and the software is configured and running, the Reno unit becomes just another drive on your Atari's Desktop. It's a double-speed unit, so performance-wise it can't touch Systems Solutions' six-speed drive (*STF* 83, 95%), but it does the job. Suddenly you have access to the hundreds of programs, fonts, picture files and samples available on CD-ROM.

Empty pockets

It's a neat unit and a neat idea, but having to buy so many other bits takes the shine off it. If you already have a SCSI setup, it could be a worthwhile purchase, but those of you starting from scratch are looking at about £250. You might be better off with a dedicated CD-ROM drive. Nevertheless, this is the only portable all-in-one package we know of, and it isn't bad. *stf*

PETER CRUSH



Just follow *ExtenDOS*'s instructions and soon you'll be using CDs on your ST!

It's fairly easy to set up the drive, but you'll have to buy *ExtenDOS* as an extra.

Product: Reno portable CD-ROM player
Price: £149
Contact: Gasteiner
Tel: 0181 3456000
Min system: Any Atari, 1Mb

STF VERDICT

HIGHS
- Very light and neat
- Good audio sound quality

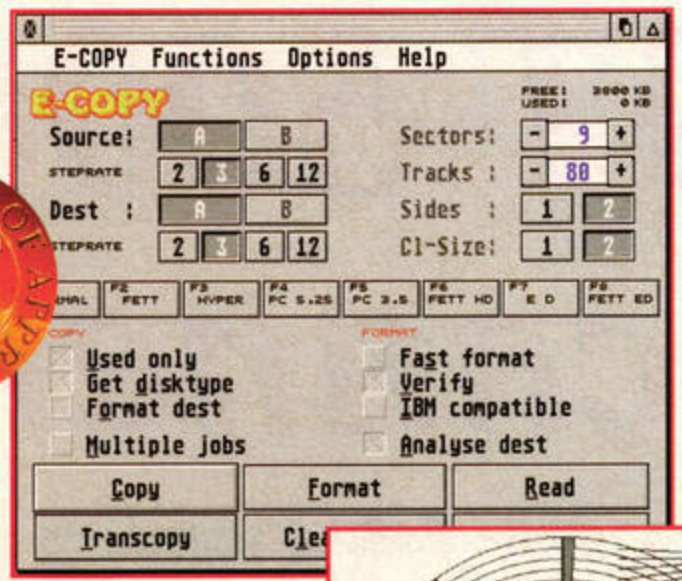
LOWS
- Software not included in package

In short...
A cute product that doubles as two different devices and just about gets away with it.

82%

Ecopy

Fresh from Germany, *Ecopy* is a super duper duper which claims to be the ultimate disk copier. *ST FORMAT* investigates.



Ecopy is pretty to look at, simple to use and incredibly versatile. Whichever Atari machine you own, it will handle all your copying and formatting needs.

Ecopy is a German challenger to the ever-popular *FastCopy Pro*. It offers a full range of disk copying and formatting options, plus a few welcome extras.

It is set up so even the most naïve first-time user can format and copy disks more easily than with the Atari Desktop's built-in format option. If you are technically minded, there are advanced format options, together with disk analysis and custom copying functions. All this adds up to a program which works with you, on your system, at your level of understanding. This is where *Ecopy* truly excels.

The manual has been translated from the original German by the author and edited by Graeme Rutt, who has done an outstanding job with the illustrations, wording and layout. The result is an easy-to-read booklet, full of clear illustrations and some useful disk theory for tech-heads. A quick read will tell you all you need to know and help you avoid mistakes.

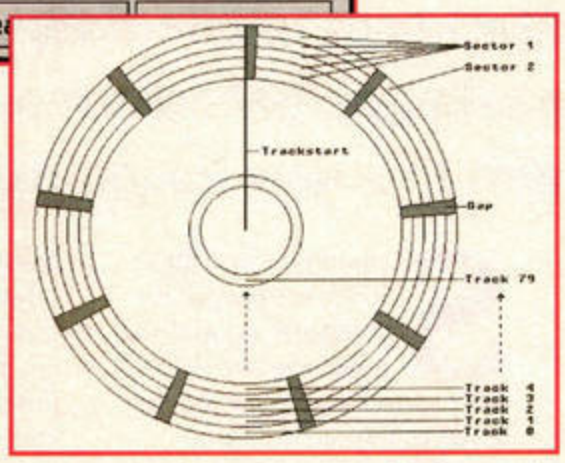
It works with you, on your system, at your level of understanding

Any system

Ecopy is one of the few programs which works perfectly on virtually every Atari ST, TT, Falcon or compatible. Even machines with limited memory are catered for, and it minimises disk-swapping for owners of single-drive machines.

It also makes it easier to make several copies of a disk on machines without much RAM. The master disk is read until all available memory is used up and the copies are written up to that point. It then reads the rest of the master disk and finishes the copies in sequence.

Ecopy can also use a hard drive as virtual memory. This means you'll always be able to copy a whole disk in one pass if you have more than 1Mb of free hard drive space.



The manual is clear and easy to read. It also contains loads of interesting technical information, including this diagram of how a disk is formatted.

Extra features

The program supports a full range of extended format options, including high-density disk formats. A utility is also provided to gauge the maximum number of tracks possible with your disk drive. Once you have done this, you can use the extended formats freely, but bear in mind that the more you stretch the system, the more unstable your data becomes.

Ecopy also enables you to store boot sectors for later use. The program even comes with a few useful boot sectors which can be applied to any disk to give it virus protection, or even to provide a RAM check at boot-up.

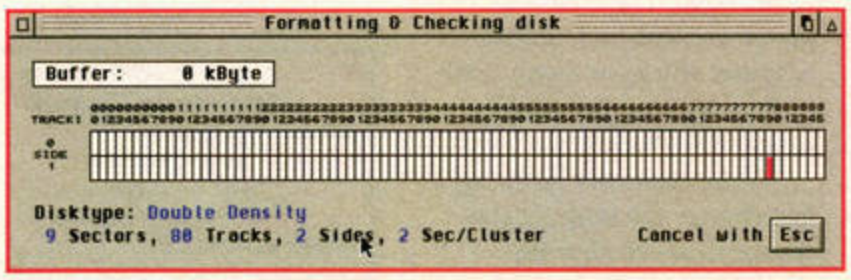
Future proof

No program is ever totally future proof, but *Ecopy* already runs perfectly under most Atari operating systems, including *MagiC*, *Geneva* and even *PowerDOS*. It is under constant development, ensuring registered owners get updates to cope with any new advances in software or hardware technology.

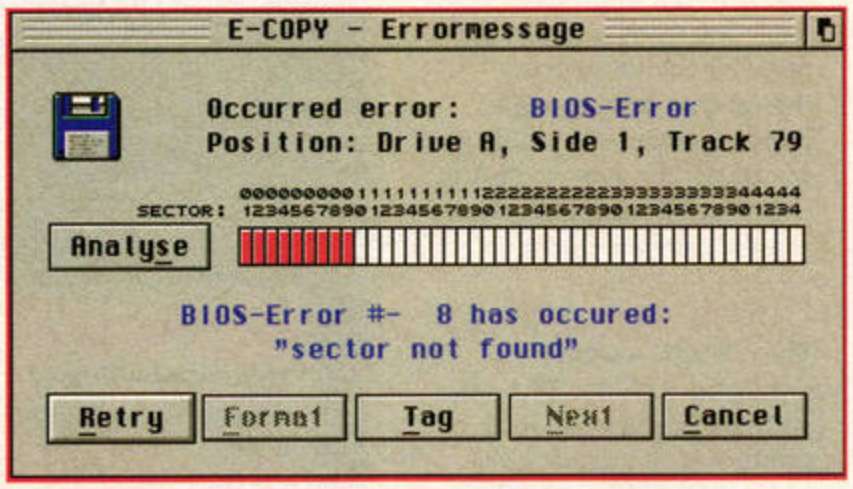
Provision is made to address the floppy disk controller directly on Atari machines, thereby speeding up disk access. If you use a *MagiC* emulator or any non-standard hardware configuration, *Ecopy* can be set to access the disk via the BIOS. This routes all instructions through the operating system and consequently slows everything down. However, it provides reassuring compatibility with a wide variety of Atari TOS or *MagiC* implementations.

Ecopy is a near-perfect program, completely justifying the author's claims. It is useful for every Atari owner, regardless of the model and specification of your computer. You can trust it completely and own it with pride. *stf*

ANDY CURTIS



1 This progress bar represents the sectors on a disk, and the bars fill as your disk is formatted. In this case, there was an error while formatting...



2 ...so this error box pops up to let us know about the problem. In most cases all you have to do is mark the sector as bad. The rest of the disk then formats without problems.

Product: Ecopy
Price: £29.95
Contact: System Solutions
Tel: 0181 6933355
Min system: All Ataris and compatibles

STF VERDICT ● STF VERDICT ● STF VE

HIGHS
- Easy interface
- Excellent manual
- Powerful features

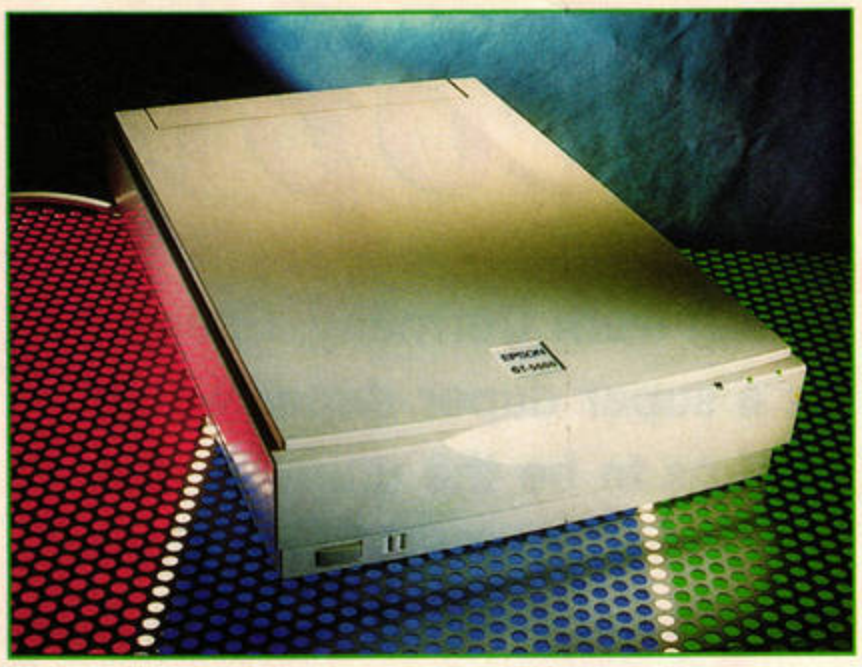
LOWS
- Nothing

In short...
A near-perfect disk copying program that's suitable for all levels of Atari user.

97%

GT-5000 Scanner

Atari-compatible flatbed scanning packages become more affordable with this new Epson machine.



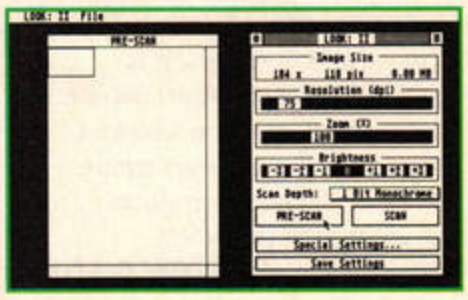
It's a sleek piece of kit, is Epson's GT-5000 scanner. And it scans exceedingly well.

Scanning is just great. It's fun, easier than computer art and the most sensible way to get pictures and hand-drawn artwork into your Atari.

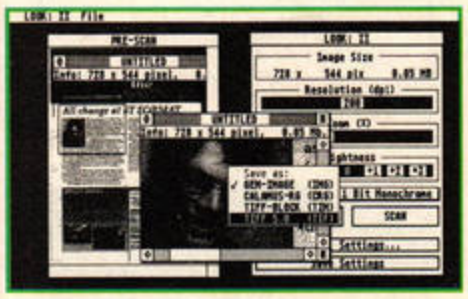
There are two kinds of scanner: hand-held scanners have to be wheeled over the page manually and can only scan 4-inch strips, whereas flatbed scanners can scan A4 pages and do the work smoothly and automatically. Flatbeds also provide better quality output, but have always been dreadfully expensive. It's good news, then, that they are finally getting cheaper. Epson has just released its most affordable one yet, the GT-5000.

It looks very similar to the other models in the GT range and is roughly the same size as your ST. The lid hinges up to reveal a glass plate, just like those found on photocopiers, and there are three coloured LEDs at the front. Apart from the on/off switch, though, there are no other knobs or controls. All adjustments are made via the *GT-Look 2* software (*STF 77*, 85%), which controls all aspects of the scanner's operation. It mirrors the functions in the PC and Mac software normally supplied by Epson.

Flatbed scanners can scan an A4 page smoothly and automatically



GT-Look's main control menu is cleanly laid out and very straightforward to use.



Here's a scan of our new editor taken from the subscriber's newsletter.

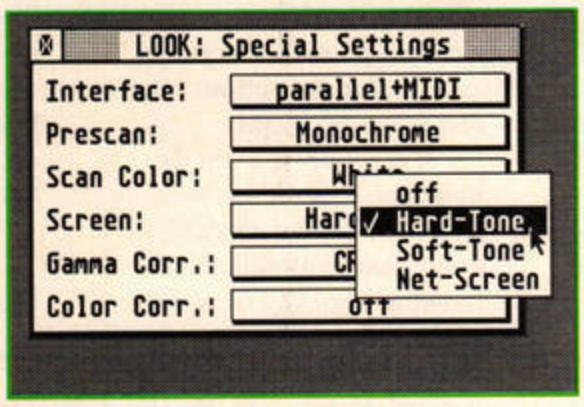
Good connections

Setting up the scanner is very straightforward. If you have a Falcon, use a SCSI lead to link the computer to the port on the scanner's rear. ST owners should use a parallel lead, available from System Solutions, to connect the scanner to your machine. Switch everything on, run the *GT-Look* software and away you go. The scanner's 'ready' light should come on, and all you need is something to scan.

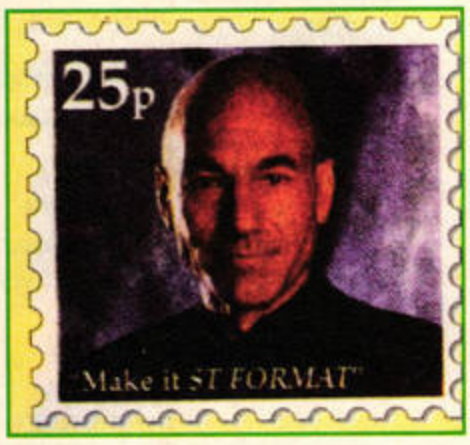
The GT-5000 scans any page up to A4 size. Simply place your paper face down on to the glass and shut the lid. A soft moulded insert on its underside holds your artwork in place. The software enables you to carry out a pre-scan of the whole page, which is displayed on your screen after a few seconds. You then utilise a selection box to define the area of interest. It can be moved around on the screen and resized as necessary.

When you're ready, click on the Scan button to start a detailed scan of just that part of the page. The resulting image is displayed in a GEM window. If you're happy with it, you can save it to disk in range of file formats.

If the scan isn't quite right, just change the settings and rescan. You can alter the resolution, brightness and dithering very easily, via dialog boxes, and repeat your scan. The scanner works in mono or colour, so even though you have to use a mono monitor with an ST, you can save your scans to disk in full colour. Falcon owners can run the software in colour.



You can adjust all the options via pop-up menus. GT-Look couldn't be much easier to use.



The scanner accurately reproduces the graininess of this low-res screen grab.

Conclusion

The GT-5000 scanner, combined with the *GT-Look 2* software enables you to produce high-quality scans on your ST. It has our full recommendation. *stf*

PETER CRUSH

Product: Epson GT-5000 Scanner
Price: £599 including *GT-Look 2* software and leads
Supplier: System Solutions
Contact: 0181 6933355
Min system: Any ST, minimum resolution 600x400

STF VERDICT ● STF VERDICT ● STF VER

HIGHS
- Cheapest ST flatbed scanner available
- Excellent results
- Easy to use

LOWS
- It's still a bit pricey

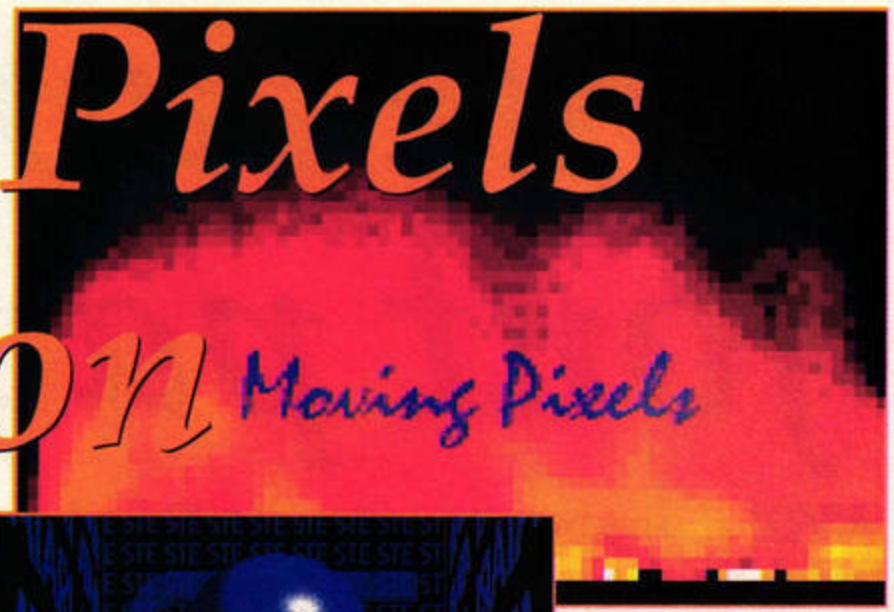
In short...
If you want a flatbed scanner for your Atari, this is the one to go for.

89%

SPECIFICATION

Size: 297mm wide, 443mm deep, 87mm high, weight 5kg.
Scanner type: Moving colour/mono head with four light sources.
Resolution: 300dpi optical resolution. This value can be increased to 2,400dpi via software interpolation.
Brightness: Seven levels.
Interfaces: Supplied with either parallel or SCSI port and appropriate lead.
Zoom: 50 to 200 per cent by one per cent steps, depending on dpi.
Reliability: 100,000 carriage movement cycles.

Moving Pixels Collection



Tony's *FIRE* demo on the Falcon, complete with beautifully fluid flames.

The *Boing* demo, with rubbery bouncing ball, was one of the earliest STE demos.

Every Atari program from the hands of Aussie coders Moving Pixels, complete with source code.

Unlike most of the current CD-ROMs, which contain shareware collections with no real theme, the *Moving Pixels Collection* bundles together masses of software from the keyboard of long-time Atari enthusiasts Moving Pixels. Split into two sections – the actual programs and the programmer's source code – the disc packs 180Mb of entertainment and utilities into one convenient package.

History lesson

Moving Pixels was programming Atari machines right from the early days of the STFM, so the CD-ROM is like a time capsule – it illustrates how Atari computers and programmers have evolved. It contains something for every TOS-based Atari computer ever produced, including the underrated TT.

With the exception of one or two full utilities and a demo of the commercial *Art For Kids* package, just about everything on the disc is either a demo or a game. Some of Moving Pixels' earlier games look dated now, but offerings like the *Breakout* clone *Chambers* are still entertaining.

The STE-specific programs are mostly demos, but there's some good stuff. While not up to the standard of multidisk megademos produced by some of the European crews, they are generally entertaining – for a while, at least. The original *Boing* demo is here, along with the well-known *Fantasia*.

The disc contains something for every TOS-based Atari computer.

Owners of the rare TT are offered three programs: two demos and the full version of *Brushworks TT*, a paint package geared to the TT's enhanced video hardware.

As we move to the Falcon, things get a little better. There are some smart demos and TrueColour slideshows, plus a real curiosity you'll probably never come across anywhere else: Tony's official Falcon demo for Atari, which occupies no less than 13Mb of disk space.

We call it a curiosity for one reason: it was designed to be run by Atari dealers, and demonstrates the range of software which Atari intended to produce for the Falcon. If you've seen Atari's first promotional brochures for the Falcon, you'll know that quite a few of these programs never appeared, making the demo unintentionally amusing.

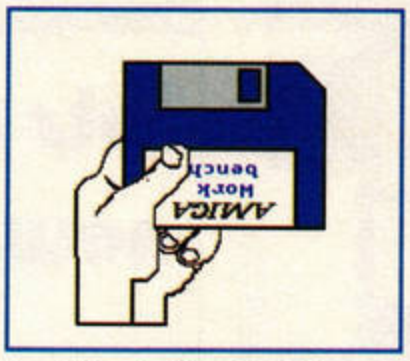
The official Atari Falcon demo, complete with the obligatory TrueColour pics of bikini-clad women.

Hacker's heaven

If you're an assembly language programmer, the *Moving Pixels Collection* is a much greater object of desire. It includes 68000 source for every demo, game and utility Moving Pixels ever created, complete with all the files needed to assemble each program. Distributor Crawly Crypt is encouraging programmers to experiment with the source. The material is copyright, so you can't alter a few bytes and release something as your own, but Crawly Crypt might take on anything you create.

We're not really sure who this collection is aimed at, and awarding a score is difficult. Programmers will learn a lot from examining Tony's commented source, but it's an odd beast for the rest of us. Many of Tony's programs are available from BBS systems, PD libraries and the like, so it's only useful if you want the complete collection in one gulp. Unless you're a programmer or a devout student of Atari history, there are much better CD-ROMs to spend your money on. *stf*

FRANK CHARLTON



Tony's idea of a joke – the Amiga 'emulator' does little more than this.

Product: Moving Pixels Collection
Price: £25
Contact: 16/32 Systems
Tel: 01634 710788
Min system: Any Atari, CD-ROM drive required

STF VERDICT ● STF VERDICT ● STF VERDICT

HIGHS
- Some superb demos
- An assembly programmer's dream

LOWS
- Only 180Mb used
- Limited entertainment value

In short...
Treasure trove for assembly programmers, but nothing special for the rest of us.

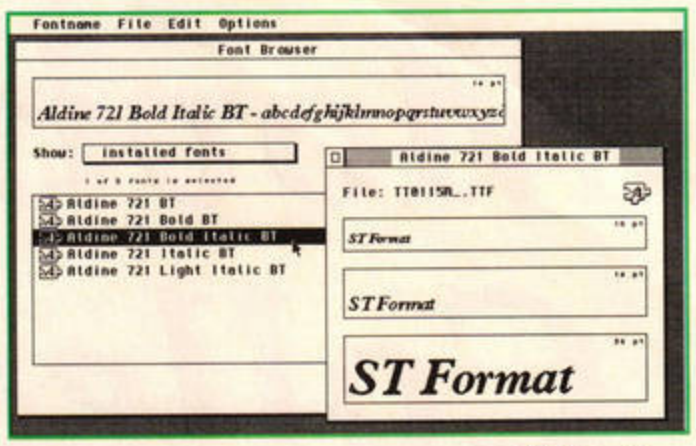
68%

TONY BARKER: WHO HE?

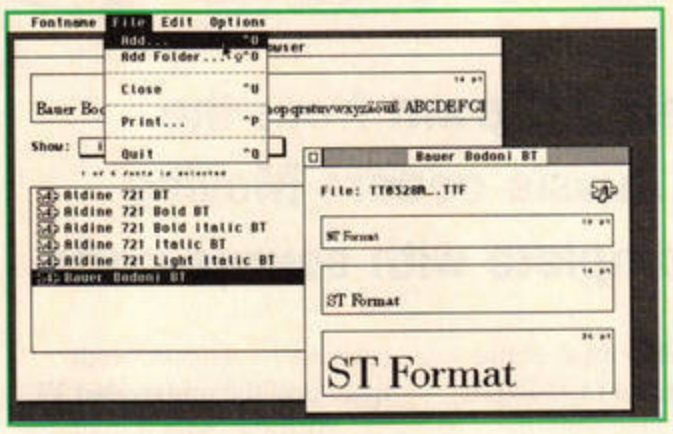
Moving Pixels was a small outfit headed by Australian programmer Tony Barker. He produced everything from art packages and commercial-quality games through to some of the first demos available for each of the 'new' Atari computers. When he left the Atari scene, Tony passed everything he'd ever written to the Crawly Crypt Corporation for release rather than letting it gather dust on his hard drive.

TrueType font packs

NVDI 4 enables you to use TrueType fonts in your document. Here are two promising new collections.



NVDI's FontName utility enables you to inspect the System Solutions fonts at different sizes.



You can also add fonts very easily, either singly or by the folderful. These are all from Font Set 1.

If you have *NVDI 4* (*STF* 82, 93%), you'll already know how easily this program handles the installation and utilisation of fonts. You get nine fonts with *NVDI*, and although they are perfectly serviceable, you might fancy buying some new ones to make your documents more distinctive.

> **Buying new fonts can make your documents more distinctive.**

Unfortunately, many fonts on sale aren't in the correct format, and if you buy fonts meant for other computers they are usually supplied on high-density disks which can't be read by a standard ST. Your best bet is to get fonts from an ST supplier, because then you know they'll be okay.

Both System Solutions and HiSoft have recently released collections of TrueType fonts. Once all your new fonts have been copied into your font folder, you can utilise them via *NVDI 4*.

100 fonts

System Solution's Font Set comprises 100 TrueType fonts on five double-sided floppies. If you copy all of them into your font folder they take up 5Mb of disk space, so you'll need a hard drive to make the most of them.

Another easy way to find out what the Systems Solutions fonts look like is to use them in *AtariWorks*.

There are two collections available; we looked at Set 1 which includes some very attractive fonts. This pack is a good buy for ST users without a CD-ROM drive.

Product: 100 Fonts Set 1
Price: £39.95
Contact: System Solutions
Tel: 0181 6933355
Min system: Any Atari, hard drive, 2Mb RAM recommended

STF VERDICT

HIGHS
- Available on floppy disk
- Attractive, usable designs

LOWS
- Needs plenty of hard drive space

In short... Well worth adding to your fonts collection if you are into DTP and design. **85%**

500 fonts

HiSoft's fonts come on a CD-ROM, and there are 500 of them. Some are PostScript rather than TrueType, so you won't be able to use them all unless you have the additional *NVDI 4* PostScript module. Nevertheless, this disc is superb value. *stf*

PETER CRUSH

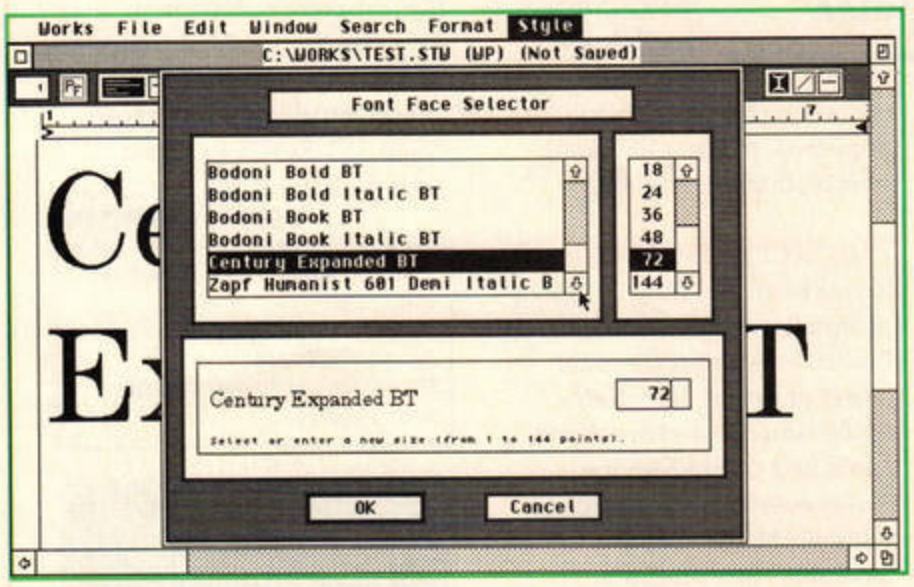
Product: 500 Font CD-ROM
Price: £19.95
Contact: HiSoft
Tel: 01525 718181
Min system: Any Atari, CD-ROM drive, 2Mb RAM recommended

STF VERDICT

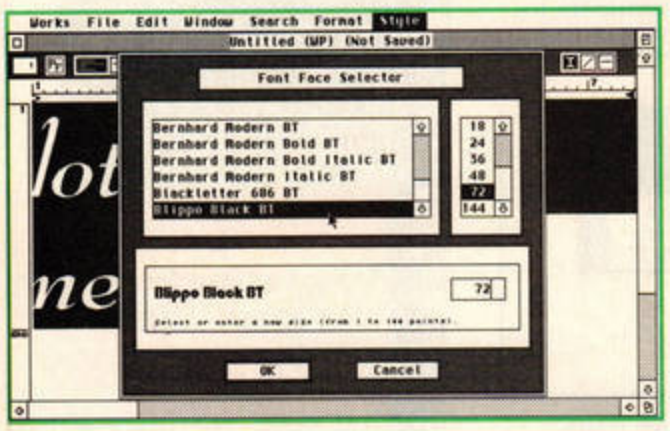
HIGHS
- Lots of fonts
- Very good value

LOWS
- Requires a CD-ROM drive

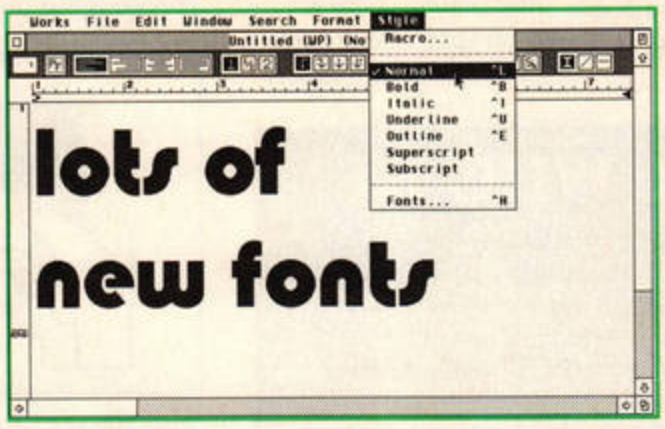
In short... More than enough fonts to keep you happy. How do they do it for the money? **90%**



All the HiSoft fonts have names, thankfully, rather than just numbers.



The HiSoft fonts can be accessed from any *GDOS* application.

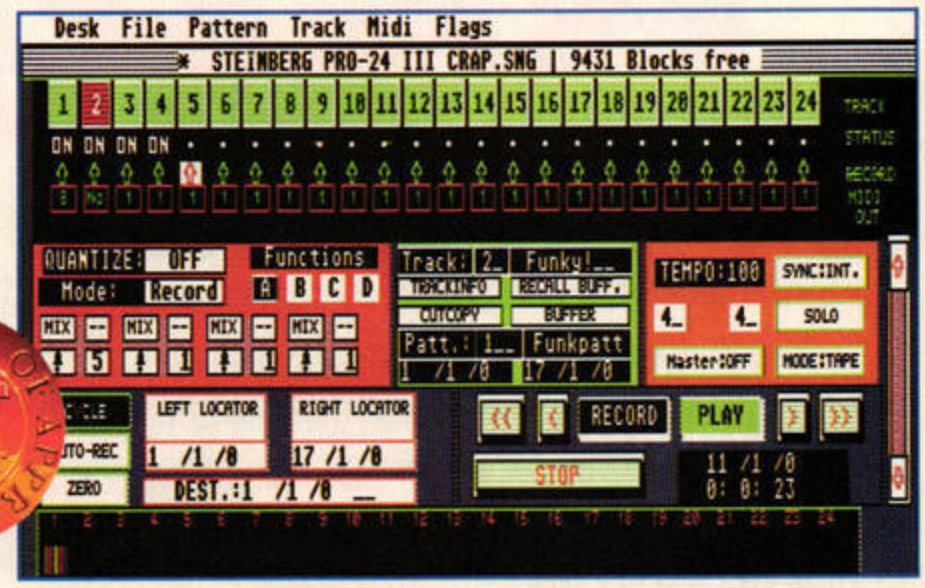


This font is called Blippo – daft name, but it looks okay.

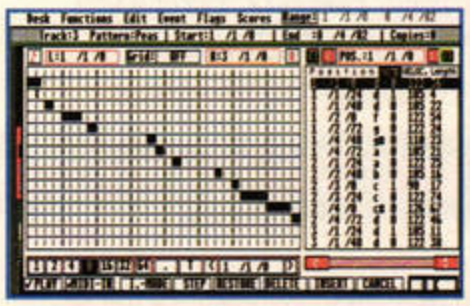
www.stformat.com

Pro 24

Retro is trendy right now, but do you really need a retro sequencer? Don your Duran Duran T-shirt and find out.



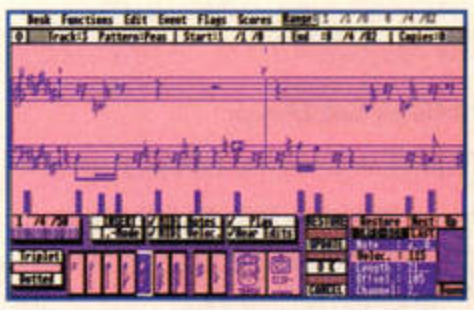
The *Pro 24* main screen is packed with buttons to click and parameters to change. Thankfully, the extensive manual explains it all beautifully.



Use the Grid Editor to change the pitch, duration, velocity and position of any note.

In the late 1980s Steinberg was already in a dominant position in the ST sequencer market. It released one final version of *Pro 24*, then moved on to the world-beating *Cubase*. Version 3 of *Pro 24* is now a very old program in computing terms, but it represented the top of its range at the time. The real question is whether *Pro 24* has any relevance today.

It's important to remember that this program now costs just £14.95 from Goodman's. If your budget is limited, there are very few alternatives in this price range. *Pro 24* comes with a nice thick manual, packed with MIDI theory and explanations of sequencing. You also get that prized possession, a genuine Steinberg key dongle.



Don't mistake this for a full Score DTP page – it's simply an aid to composition within a musical stave environment.

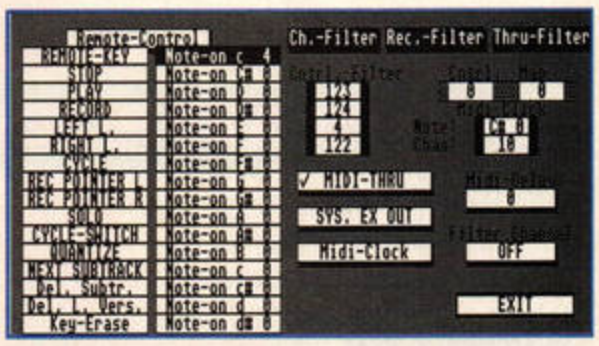
High-powered

Pro 24 has a number of powerful editing pages, including Grid and Score Edit. The Score Edit page isn't quite what you might expect, because it is simply an editing page, rather than a printing system as well. For those used to working on the stave with bars and notes, it is still very useful.

If your real-time performance skills aren't all they should be, you can use this page to copy in a printed score or create your own music in notation. You can always create a MIDI file of your work and take it to someone with score printing facilities, so your painstaking work isn't wasted.

The Grid Edit page has much in common with *Cubase's* Key Edit page. The graphical notes scroll on the left-hand side of the page and there's an event list on the right. It's easy to change parameters by using the right and left mouse buttons to increase and decrease their values.

It also supports step entry of notes. This means you can play your notes on a MIDI keyboard and have them appear at set note values on the grid. It's just the job if you need to get a difficult semi-quaver run right, because you can take it as slowly as you like.



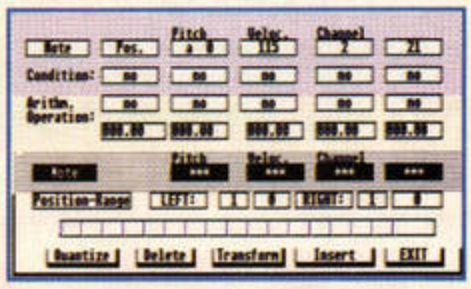
You can control *Pro24* from your MIDI keyboard by activating the remote control system. Play the special remote note, then any other assigned note.

Cubase-alike

Pro 24 is the acorn from which *Cubase* grew, so there are many features which are very similar, if not the same. Logical Edit works in exactly the same way in both programs, as does the Master Track editor. The idea of arrangements being a string of patterns was already well-established.

These last few copies are a gift to anyone starting out in sequencing

The only fundamental difference is the main page. The genius of *Cubase* is that it displays the arrangement on the main page, whereas *Pro24* does not. This makes it much harder to visualise the progress of your song. You need to work on individual patterns, using the left and right locaters to mark blocks, and then arrange your patterns on the arrange page. Get your mind round this and *Pro24* is a breeze to use. If you decide to treat yourself to a copy of *Cubase*, your *Pro24* songs load in perfectly using *Cubase's* Pro24 Import function.

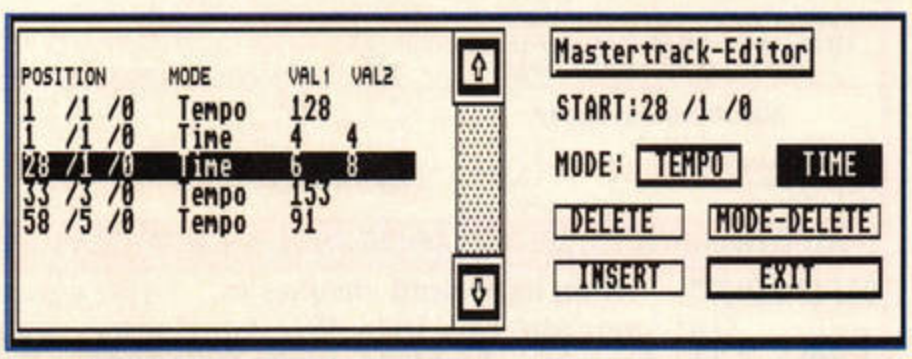


Some pages aren't particularly attractive. Logical Edit falls neatly into this category.

Gold again

These last few copies of *Pro24* are a gift to anyone starting out in sequencing. The price is little short of spectacular and the sequencer is still the capable machine that it always was. It does sometimes crash, though, so save your work as often as possible. If you need a fully featured beginner's sequencer with real power, stop reading this immediately and get on the phone to Goodman's. This one is simply too good to miss. *stf*

ANDY CURTIS



The text-based Master Track editor is very similar to *Cubase's*.

Product: Pro24 (version 3)
Price: £14.95
From: Goodman's
Contact: 01782 335650
Machine: All STs, 1Mb

VERDICT • STF VERDICT • STF VERDI

HIGHS
- Incredible price
- Comprehensive editing
- *Cubase* compatibility

LOWS
- A little dated
- Only 24 tracks
- Slight instability

In short...
A proven program at a knock-out price. This offer is too good to miss.

91%

www.stformat.com

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Missile Command 3D

Texture-mapped bosses float effortlessly around the screen, raining missiles on your sensitive cities. You have to be tough to save the world. And vigilant. And a good shot.

So, is the Cold War over? Not on the Jaguar, where you must save your virtual cities from thermonuclear destruction.

Atari continues its fascination with the past with the unveiling of *Missile Command 3D*, its latest reworking of an arcade classic.

For those of you who aren't old and crusty, *Missile Command* was a huge hit in the early 1980s, when Atari reigned supreme as top dog in the arcades and at home. The concept is simple: you have six cities to defend and three missile bases to shoot from. Waves of nuclear missiles, smart missiles, aircraft and satellites attempt to demolish your cities; you have to shoot them down.

However, there's a catch: your missiles take a while to reach their targets, so you need to predict their trajectory and aim ahead of the incoming objects. Every time you score 10,000 points you get a new city to replace any that have been destroyed; when all six are gone, the game is over.

Missile Command 3D combines classic gameplay with decidedly 1990s graphics.

If you drop your defences when the electric eel slithers into view, you're in for a shock.

Power-ups, such as this laser upgrade, are left in the wake of mini-bosses.

Three for one

Missile Command 3D comprises three very different games: Original, 3D and Virtual. Unfortunately, the 'original' version bears little resemblance to the arcade game. It looks as if someone programmed it from memory, and while it plays reasonably well, it isn't worth getting excited about.

The 3D version is more rewarding. It's played from the point of view of a person on the ground, looking up. Once again, you have three missile bases to fire from, but now you see the warheads with their plumes coming down at you, which is very eerie. The sky is much wider than your field of view so you need to make good use of the radar to know where to look next.

Upgrades

Surviving cities can have their tech levels increased, a neat twist which enables you to build extra weapons. The smart bomb is especially useful when things get frantic on the later levels.

The final version is Virtual mode. This adds all kinds of extra bells and whistles, such as weapon power-ups, underwater, sky and space stages and end-of-level bosses. It is similar to the 3D game but requires a more tactical approach, because different weapons suit different targets. If you use the wrong weapon too early you'll be in big trouble later on.

Don't get carried away collecting power-ups, because time wasted collecting these can result in incoming missiles reaching their targets. Enemy craft also swarm about dropping bombs, making it easy to miss them. Extreme vigilance is the name of the game.

Original mode apart, the graphics are pleasant enough, and the intro screen is excellent. The camera zooms about what appear to be corridors, then pulls back to reveal the words 'Missile Command 3D'.

Pretty in 3D

The 3D modes have nice glint and lens flare effects as you pass the sun, making it look as if you're playing through a camera. There's also some simple but effective use of texture mapping in the 3D objects. Rather oddly, though, the spinning VR logo which appears when the game is started is the most appalling effort at 3D we've ever seen. It wouldn't look out of place on a Commodore 64.

The music is in typical Jaguar style and adds a suitable techno ambience to the proceedings. Sound effects are generally good, but we'd have liked the right noises on the original version.

Original *Missile Command:* old and not very good, despite the trendy view settings.

Missile Command 3D was originally designed for use with the aborted virtual reality (VR) headset. Given the last-minute change, it holds up pretty well, but playing the 3D versions did make us wish Atari had persevered with VR. They would be impressive through a VR helmet.

As it stands, *Missile Command 3D* is still a fine blast-'em-up. It may not impress your friends, but it has that time-honoured 'Just one more try' feel. *stf*

IAIN LASKEY

Product: Missile Command 3D
Price: £49.99
Contact: The Console Centre
Tel: 01484 544926
Min system: Jaguar

VERDICT ● STF VERDICT ● STF VERDI

HIGHS
- Addictive
- Excellent point-of-view graphics

LOWS
- Original version is poor
- Virtual version needs more levels

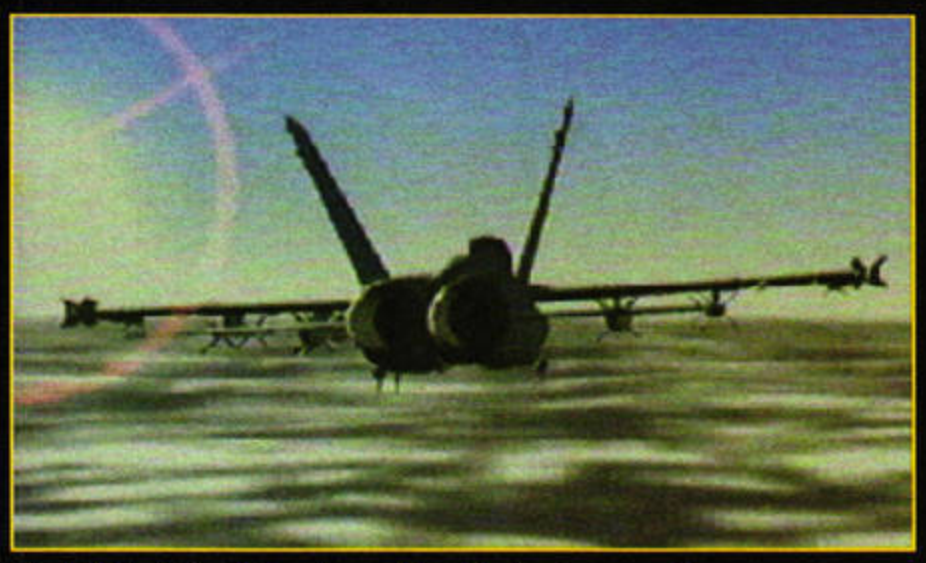
In short...
Hardly state of the art, but it still manages to provide seriously addictive blasting.

75%

JagCD

After months of patient stalking, *ST FORMAT* – the David Attenborough of computer magazines – finally brings you the shy, retiring JagCD. Shhh!

The CD unit sits neatly on top of your Jaguar, enabling you to play both CD-ROM and cartridge games (but not simultaneously, of course).



Blue Lightning's video footage is superbly rendered and very smooth.

After numerous false starts and non-appearances, the CD-ROM add-on for the Jaguar slid quietly into the shops at the beginning of this year. Bundled with two full games, a demo and an audio CD, it's an easy-to-use package that unlocks the massive storage space offered by the CD-ROM format.

The drive slots neatly into the Jaguar's cartridge slot – you leave it plugged in and use the new port on the top to play cartridge games. A separate power supply is provided, which is a bit of a nuisance (it was originally going to be powered from the Jag itself). However, the JagCD feels well made and the two units slot together solidly.

Starting a CD-ROM game is simple – insert the disc and turn on the power. Cartridge games always take precedence, so remember to remove them before you try to play a CD-based game.

While both the Jaguar and the JagCD can produce stunning stereo output, the basic kit routes all the sound through your television. If you want stereo sound, you'll need a lead to connect the Jaguar to a stereo television or hi-fi amplifier. This is annoying: the JagCD can play standard audio CDs, and the Virtual Light Machine (see the Looks Good! panel) revitalises your record collection, but who wants to listen to music in mono? It's a shame there isn't a headphone socket – if anything deserves one, the JagCD does.

You'll also need to find £30 for the memory track cartridge. Whereas cartridge games use battery-backed memory or a password system to save your games, the JagCD offers neither as standard. Without the extra cart, you can't save your position at all. This a huge drawback if you favour complex adventure games, such as *Myst*, so remember to include the memory track cartridge in your budget.

These criticisms aside, we like the JagCD a lot. It opens up new worlds of gameplay and provides a novel way to enjoy your CD collection. Apart from the lack of stereo sound capabilities in the standard kit, the design and construction is excellent. We certainly think it's a worthwhile purchase if you're serious about Atari gaming.

Blue Lightning

Here's a sound idea. Take a really old game – which wasn't that good anyway – from Atari's Lynx handheld console and update it to utilise the power of the Jaguar and JagCD. Eh? Exactly. That's *Blue Lightning*: an updated conversion of the creaking

A quick trip through Bath's industrial cityscape for a pizza, then head for home.

MYST DEMO

You only get to explore one location in the playable demo of *Myst*, namely the wood-panelled library.

The slideshow provides a taste of the exotic locations offered by the full version of *Myst*.

Myst **is a well-known point-and-click graphic adventure game which first appeared on the Apple Mac, where it sold by the bucketload. The Jaguar version is available now, and the JagCD bundle includes a limited playable demo.**

In the full version, you're stranded on a mysterious island and have to discover what's going on, and how to get away. *Myst* is acclaimed for its superb rendered scenery, and this version takes advantage of the Jag's 24-bit colour capabilities.

The demo is very limited, though. You're restricted to exploring one building – the library – and there isn't a lot going on. However, it does let you get a feel for *Myst's* free-form plot and simple interface. There's also a stunning slideshow of scenes from the full game and some superb video and audio footage. You probably won't play with this for more than an hour or so, but it provides a decent taste of the real thing.

SOUNDS GOOD?

An odd one, this. The only bundled item which isn't Jaguar-specific is a standard audio CD containing the soundtrack from Atari's legendary *Tempest 2000* game. The game was renowned for its upbeat pounding techno soundtrack – the perfect accompaniment for Jeff Minter's explosive colourfest. It's a bit odd to separate the music from its context, but it works.

The disc isn't a direct copy of the game audio: the original musicians, IDI, have remixed and re-recorded it, adding extra tracks and expanding the existing ones. The disc provides 12 tracks of clear digital audio and lasts almost 64 minutes. You'll either love it or hate it, depending how you feel about screeching techno wallop noise. It works well with the Virtual Light Machine, too.

arcade flight simulator from Atari's pocket pal.

To be fair, it is substantially better than the Lynx version. You start by undergoing a series of training missions, after which you're drafted into the full Blue Lightning squad, ready to tackle the real missions.

As with all the pack-in games, *Blue Lightning* is chock-full of moving video footage. Strip away the eye candy, though, and you're left with a fairly basic pseudo-3D aerial-combat game. You have a choice of three planes to begin with, and success in the missions rewards you with new fighters and bombers. Weapons are initially limited to cannons and missiles, but later missions offer napalm (we kid you not) and cluster bombs.

Your plane has three basic throttle controls – cruise, air brakes and afterburners. Coupled with the simple weapon controls, this makes *Blue Lightning* easy to play. You can't hit the ground, but it's a good idea to avoid mountains and buildings.

Whether you're fighting enemy jets and choppers or bombing fuel tanks, *Blue Lightning* can be a lot of fun. We can't see the appeal lasting all that long, but it's fine for a quick dog-fight when the mood takes you.

A worthwhile purchase if you're serious about Atari gaming

VidGrid

Probably the most visually striking item in the CD bundle, *VidGrid* is also the most limited in gameplay terms. It takes the ancient sliding-block puzzle concept and updates it for the JagCD with full-motion video footage. Rather than chopping up simple static images, *VidGrid* slices and dices moving video and requires you to rearrange it correctly.

VidGrid shows off the JagCD's power, but falls sadly behind with its short-term gameplay and lack of variety. All the tracks feature rock or heavy metal.

To solve the puzzle, you drag squares of video to the right place in the grid. You must unscramble the picture before the video finishes to continue playing. The first puzzles only have nine pieces and are easy to solve, but later levels have up to 35. Segments of video can also appear either upside down, horizontally flipped, or both.

If you think this looks easy to solve, remember that it's fluid moving video in real life.

There are eight full videos on offer, all featuring rock or heavy metal. Tunes range from the power thrash of Metallica's *Enter the Sandman* to the less abrasive *Cryin'* from Aerosmith. The snag is obvious: you'll soon get tired of unscrambling the same videos again and again.

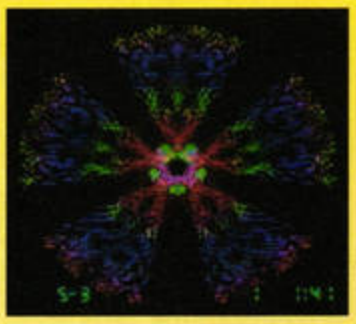
Box of tricks

Overall, the pack-ins are a bit lacklustre, but there are plenty of them. They get you started, but you'll want some full-price games before long. *stf*

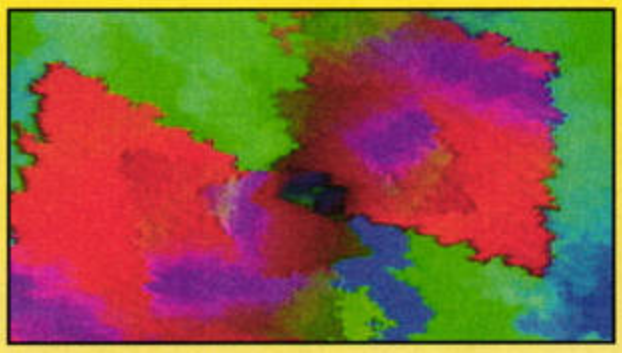
FRANK CHARLTON

LOOKS GOOD!

Another product of Jeff Minter's fevered imagination, the Virtual Light Machine (VLM) is built into the JagCD hardware. A direct descendant of Jeff's earlier attempts at light synthesisers, *ColourSpace* and *Trip-a-Tron* (both on the ST), the VLM is spectacularly odd.



Still images don't begin to show you the beautifully liquid nature of these pulsing patterns.



Loud music produces extreme results with some of the VLM's more colourful effects.

At the most basic level, it's an interface enabling you to listen to standard audio CDs on the JagCD. However, rather than provide a simple set of controls to start and stop playback, Minter has unleashed a mind-bending tool which produces psychedelic light shows to accompany your favourite music.

When you stick a disc in, you're confronted with a photon storm of the highest proportions. The VLM has nine effect banks, each containing nine separate sound-to-light effects. You can either instruct it to trigger effects randomly, or use the joypad to skip through the banks yourself. Some types of music work better than others – heavy rock isn't as good as a piece with shades of light and dark, for example. Shove in a CD with the VLM set to randomise and you'll stop the conversation at any party.

We initially thought it was just a gimmick to fill up space on the JagCD's ROMs, but of all the goodies in the JagCD bundle, the VLM is the item we've played with the most. You'll find yourself going back to it again and again, armed with different audio discs, just to see how it performs.

Product: Jaguar CD-ROM
Price: £149.99
Contact: The Console Centre
Tel: 01484 544926
Min system: Atari Jaguar

VERDICT ● STF VERDICT ● STF VER

HIGHS
- Good range of bundled software
- The VLM is superb

LOWS
- Needs extra cables for stereo audio

In short...
Increases your enjoyment of the Jag and brings new life to your audio CDs.

80%

BattleMorph

If you own a Jag, you've played *CyberMorph*. The sequel harnesses the power of the JagCD to bring new tricks to the party.

Aha, the Atari UK offices. You can tell, 'cos it's a nice building that doesn't do much.

Those Pernitians, eh? Not content with being soundly trounced when they invaded our peaceful blue globe back in *CyberMorph* days, they're at it again.

After the Earth forces routed the Pernitians last time, a fleet of huge battle cruisers was built to patrol neighbouring space. When the cruisers suddenly stop coming home, the top brass finally realise that something is out there – and it isn't the truth. In a final stab at universal peace and harmony, they send the last of the cruisers out to spank those irritating bug-eyed monsters once and for all.

It's war

Your original TransmoGriffon ship has been upgraded since the last conflict. The new War Griffon can do everything the *CyberMorph* ship could, but is faster and harder. It can also explore beneath the ocean waves and penetrate hidden underground complexes. As the last pilot of the final Griffon aboard the only remaining cruiser – nice cheery job – you must track the Pernitians across the galaxy, recovering enough plasma to power the Sutherland to the enemy's home world.

Eye candy

CyberMorph was a tiny cartridge, whereas *BattleMorph* arrives on a CD with a whopping 650Mb of storage space – so what's new? For starters, the music. Rather than the limited soundtrack offered by *CyberMorph*, your airborne assaults are accompanied by 'real' music – perfect 16-bit stereo sound played from the CD. Likewise, sound effects are clearer and more varied.

There are plenty of full-motion video movies which crop up as you play. The tale of the Pernitian battles is rendered in glorious moving TrueColour, and the quality is superb. The most amusing aspect is the voice-over, which tells the story and guides you through the missions. Rebellion has managed to find a very credible Sean Connery impersonator – he made us smile, anyway. The extra space also means more scenery, more enemies and lots and lots of textures. Everything from the buildings to the enemy ships is lovingly texture-mapped to provide a real visual feast.

The battle cruiser Sutherland, home to your lone – but not completely hopeless – assaults against the Pernitians.

It plays like *CyberMorph* with knobs on, basically. Whereas most of the original missions involved collecting anonymous yellow pods, *BattleMorph* has more scope. Mission tasks range from taking out entire planets by popping huge generators to searching underwater for lost weapon technology.

The atmospheric music and fantastic visuals are a treat for the ears and eyes

As the missions progress, you are rewarded with new weapons. Unlike *CyberMorph*, where you pick up arms for each mission, once you find something you get to keep it. The more appealing visuals don't slow the game down, either. Everything belts along, with a real feeling of speed. Try cutting across the surface of a lake at full tilt to see what we mean.

Conquer space

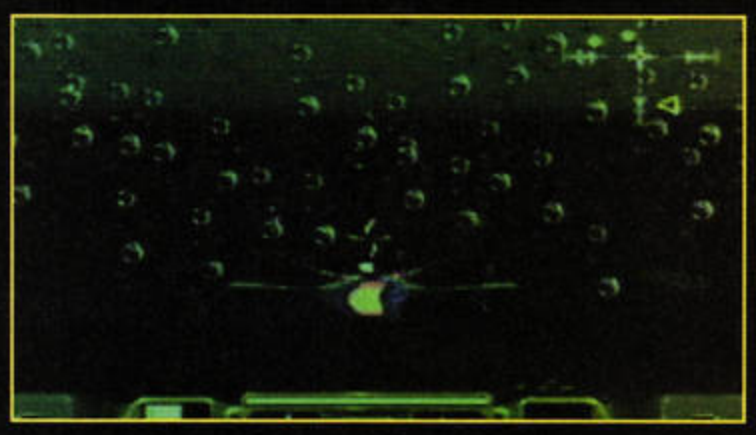
If you liked the idea of *CyberMorph* but found the lack of variety a little annoying, you'll enjoy the increased depth of *BattleMorph*. Fans of the original will certainly relish the prospect of getting deeper into the Pernitian scenario. As with all JagCD games though, you need a memory track cartridge to get the best from it; otherwise you'll be playing the first few worlds until the end of time.

Fast and funky

BattleMorph's atmospheric music and fantastic visual extras are a real treat for the ears and eyes, but that isn't all it has to offer – it's also a fast and addictive game. Now, where did I leave my space boots? *stf*

FRANK CHARLTON

Here we're exploring a subterranean tunnel, looking for Arthur Scargill. Er... hello, who nicked our torch?



It finally dawned on the designers to make your ship waterproof. Shame we're in for a drought.

Product: **BattleMorph**
Price: **£49.99**
Contact: **The Console Centre**
Tel: **01484 544926**
Min system: **Jaguar and Jaguar CD**

VERDICT • STF VERDICT • STF VER

HIGHS
- Varied missions
- Superb sound and music
- Fast and fluid

LOWS
- If you didn't like *CyberMorph*...

In short...
A worthy sequel to the game we all own, and a great blaster in its own right.

89%

Win a Jaguar!

Yes, to celebrate the belated appearance (in these pages) of the Jaguar CD, we're offering you the chance to win another Jaguar, with game and joypad. The three runners-up will receive a Jaguar game of their choice.

The prizes are being provided by The Console Centre, a new mail order company dealing with Jaguar games. Matt Magee will also be attending the Atari Shows in Birmingham and London to demonstrate and sell a wide range of Jaguar equipment.

All you need to do is answer the prize question (below), fill out the form and send it to: The Console Centre, Shire Link, Halifax Rd, Birchencliffe, Huddersfield, West Yorkshire, HD3 3BS. Entries should arrive no later than Friday 5 July 1996. The winners will be published in a future issue of *ST FORMAT*.

THE CONSOLE CENTRE

The Console Centre is a new mail order service that caters for all Jaguar owners. It stocks a wide variety of Jaguar hardware and software, including the new JagCD unit (reviewed on page 28). Over 50 cartridge and CD-based games are stocked at competitive prices, and if you have a copy of issue 83 you can still use the coupon printed on page 11 to get a five per cent discount on your order.

You can contact The Console Centre on ☎ 01484 544926 during office hours, or write to the address given above for a copy of its price list.

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GD1958 Course Angler	GD1884 Play Time	GD2318 Grocery Lister
GD2779 Grannies Garden	GD2248 Clock Time	GD2477 The Financier

The above selection is only a small example of what is available. Our printed Shareware Guide is now over 250 pages, with screen shots and descriptions for hundreds of disks of all that's best in Public Domain and Shareware for the Atari computer, including all the latest utilities and applications. So if you want the best, discover why thousands of users worldwide have for over eight years chosen Goodman's, send for our catalogue today.

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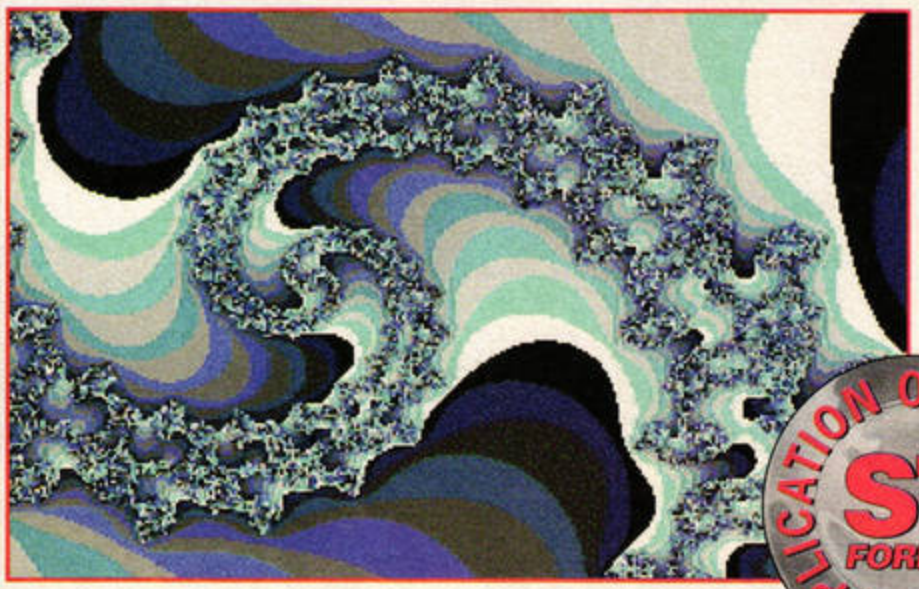
P&D Shareware

Andy Curtis was so busy searching for the best new PD and shareware that he failed to provide an introduction this month.

Psycho Collection



This is just one of the excellent fractals used in the *Psycho-Fractal* demo. It can be displayed in any combination of colours.

Psycho-Script doesn't require any MIDI gear. You simply script out your commands to create flashy presentations.

The incredible *Psycho-Fractal* demo starts here. Parts of the editor are enabled so you can get an idea of their possibilities.

Goodman's PDL
Disk GD2774 *(Psycho-Script and Psycho-MIDI)*, Disk GD2775 *(Psycho-Fractal)*
All STs, medium res

This hypnotic array of flashing fractal utilities is the brainchild of Gareth Jones. *Psycho-Fractal* really just demonstrates what the main editor programs can do, but it's completely mind-boggling. Carefully scripted and using only 16 pre-loaded pictures, it strobes and pulses quite magnificently, creating unparalleled fractal effects on your ST. It switches between the images incredibly quickly and the 16 colours are modulated at high speed. The result is a frenzy of light and colour which fits perfectly with modern rave music.

The other two programs are cut-down versions of the editor programs. You can only use four pictures and the colour modulation is limited, but most of their other functions are enabled.

You can load any low-res *Neochrome* or *Degas* picture, so you are not limited to fractals. The MIDI version enables you to drive the graphics output from an external MIDI sequencer, such as another ST, a hardware sequencer or a drum machine. You can even sequence the display to fit with your music. The non-MIDI version relies on scripting to create the same effects. These programs are great fun to play with and might be useful for unusual live performances.

The full version, *Fractal-Movie*, is available from the author for a remarkably reasonable £5. If you do nothing else, though, indulge in a copy of *Psycho-Fractal*, just for fun of it.

***STF* RATING: 90%**

STOS Adventure Creator

Goodman's, Disk GD2780
All STs (TOS 2.06 and Falcon require *Generic STOS Fixer*)

This straightforward adventure creation program was used to develop *Granny's Garden* (*STF* 84, 79%). The game is also supplied as an example of the sort of thing you can produce.

***Adventure Creator* is very simple to use: just select the item you wish to work on, whether it be an object, dialogue or connection, and edit your items and links. You can also add pictures to give your game life and use mouse-driven navigation routines.**

This is an very accessible product, suitable even for those who wouldn't describe themselves as programmers. Give it a try, you might just surprise yourself – and if you do write something really good, send it in for review.

***STF* RATING: 86%**

The *STOS Adventure Creator* isn't a flashy program, but the adventures you create can be as colourful as you like.

www.stformat.com

Nova 10

Science fiction fans are going to love issue 10 of *Nova* diskzine. It's packed with interesting stuff, including a picture of Kate Mulgrew (Captain Janeway, *Voyager*).

James Bird, 91 Elm Tree Ave, Kilburn, Belper, Derby DE56 0NN, £1.50 inc P&P
All STs

The *Nova* diskzine has deservedly made it to issue 10, and a very fine issue it is too. The science fiction theme is expressed through six topics: *Star Trek (TOS, TNG, DS9* and *Voyager), Babylon 5* and *The X-Files*. Each topic is well covered with interviews, episode guides and gossip.

Nova doesn't go in for wild rumours or anything that isn't substantiated, and this gives it a feeling of solidity. The tone is serious, but not heavy, with the emphasis on quality information – and plenty of it. The text is well laid out, with a neat interface, and there are very few grammatical or spelling errors.

If you like pictures, there are a few in the art gallery – mainly of *Star Trek* people and ships – but the interview with Marina Sirtis is the highlight of the 'zine *(Nick would say 'Phwoar!' at this point, but he'd get clipped round the ear by his new girlfriend)*. Essential reading for fans of science fiction.

STF RATING: 88%

UPDATES

Zorg 2.03
LAPD
All Ataris

The excellent disk and file utility *Zorg* is now at version 2.03. The main update is an *ST-Guide* help file in English. It isn't complete, but it's a start. It's also now compatible with your Desktop background design, so *Zorg's* desktop now looks like your standard one.

As with previous versions, the defragmenting functions for your hard drive are disabled in the demo version, but the sector-editing functions aren't. *Zorg 2.01* scored 85% in issue 80.

STF RATING: 71%

There isn't much new in *Zorg 2.03* and you still need to register to get access to the hard drive defragmentation functions. The more things change...

UDO marches to version 5, which includes new scripting commands and greater cross-platform support.

UDO 5
LAPD
All Ataris

UDO continues its growth in this new version, which adds many new commands to the scripting language. You can now include up to 200 links in a paragraph and use up to 1,024 chapters. It also supports *Windows* and *Turbo* help formats, so you can convert your *UDO* scripts to work with PCs running Windows. *UDO 4* scored 81% in issue 83.

STF RATING: 81%

For more about *UDO 5*, see page 41

Kelstar 1

The *Kelstar* diskzine: we won't weep if there isn't an issue 2.

Asciilum PDL
All STs

Although it isn't immediately obvious, this diskzine should carry an 18 certificate. Judging by the language used, it is aimed at the adult market.

The 'zine is meant to be a humorous look at life, cinema, technology and computing, but it's actually a collection of coarse jokes, sexist humour and a few cribbed text files. The text file about Pressure Zone Microphones is quite interesting, but Bob Kell freely admits he pinched it from elsewhere and didn't understand a word of it.

It looks as if he ran out of ideas after his brash news file and collection of blue jokes, few of which are even remotely funny. It is to be hoped that we never have to endure a second issue of this particular 'zine.

STF RATING: 3%

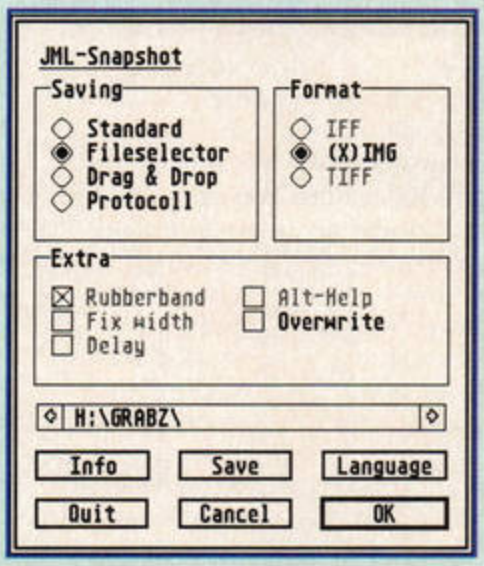
JML Snapshot

LAPD
All Ataris

JML Snapshot is a screen grabbing utility which works on virtually every Atari and TOS-compatible machine. The shareware version is limited to IMG and XIMG support, but is nonetheless fully usable.

If you change the extension from ACC to PRG, you can configure various options, as shown in our grab (for normal use, run *JML Snapshot* as an Accessory). Altering the options enables you to take grabs from most programs, but perversely, one program we couldn't grab at all was *JML Snapshot* itself.

The shareware registration is £12 through InterActive. All the details you need are included with the package. If you're considering buying *Imagecopy* (£24.95 from FaST Club, ☎ 0115 9455250), but don't need the picture display functions, *JML Snapshot* is well worth a look.



If you have an Atari machine or any TOS clone, *JML Snapshot* will grab screens from almost any program.

STF RATING: 83%

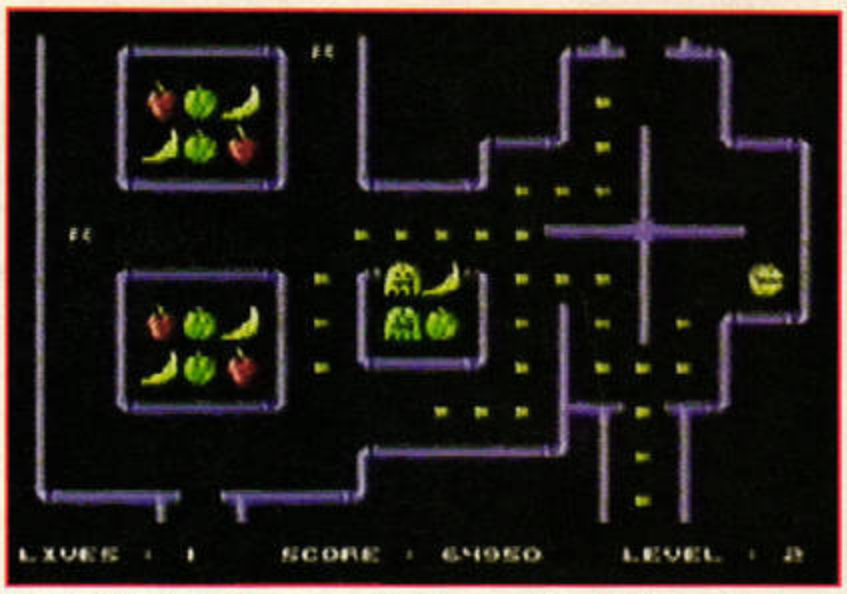
www.stformat.com

Jaguar compo entries

LAPD, in conjunction with *ST FORMAT*, recently ran a competition for games writers. All (all!) the entrants had to do was write an original game. The entries were many and varied, but the top spot went to Gordon Storey for *Michigan Mike* (*STF* 82, 89%). The runners-up were Jon Lewis, for *Sub Aqua*, and Simon Scott, for *Astro 2000*.

This month we bring you a reviews of *Astro 2000* and several of the other entries. All the games are available from LAPD.

Pac Attack



Pac Attack is a better than average *Pac Man* clone. It's entertaining and the levels are different enough to be fun.

All STs

There are more *Pac Man* clones than you could shake the proverbial stick at, but this one has two significant advantages. First, it isn't written in *STOS*, so it stands a fair chance of functioning on most machines, and second, it runs at a fair old lick. Joystick control is responsive and you feel as though you have a reasonable chance of outwitting those ever-present ghosts.

There is a version for 512K machines on the disk, as well as an enhanced game for those of you with 1Mb or more. The extra RAM buys you a much nicer soundtrack.

Unfortunately, there are no documents with the program, so you need to work it all out for yourself. It isn't hard: eat all the dots, munch the fruit and stay clear of the ghouls. As you progress through the levels the playing area becomes more interesting and the dots harder to reach, but the dice aren't loaded against you and there are plenty of bonuses. The ghosts don't gang up too badly against Mr Pac either, which is nice, especially if you – or your children – are new to this game. This is a creditable attempt at a *Pac Man* clone and worthy of an energetic blast when you need to let off steam.

STF RATING: 83%

Bludgush

All Ataris (TOS 2.06 and Falcon with Generic STOS Fixer)

A charming name for a particularly shallow game. It's easy to play: you choose a location and blow away as many soldiers as you can. All you see of your character is your gun, and the scene itself is static. As the soldiers appear, you move your gun from side to side to aim, then fire to kill them. They die with enough blood to justify the title, but there is no real satisfaction in slaying them.

Your gun doesn't move up and down, so you can't shoot upwards, but any soldiers above your line of fire are killed when you aim at the right vertical line.

The most entertaining thing about *Bludgush* is the way the soldiers move: they all look as if they didn't make it to the toilet in time. Nevertheless, it is still a fairly well-written, if somewhat tasteless, blast-'em-up.

STF RATING: 73%

Fancy a little mindless violence killing some hilarious shuffling soldiers? Thought so.

PD & SHAREWARE ROUND-UP

If a program scored over 80% in these hallowed pages in the last four months, it's listed below. If you want to know more, turn to page 50 and order the relevant back issue. You know it makes sense.

TITLE	PD LIBRARY	TYPE	ISSUE	RATING
Let's Spell 1st 500 Words Intro	Goodman's PDL	Utility	82	96%
Warp 4	Keefy	Diskmag	80	94%
EKO System Demo	Falcon Owner's Group	Falcon demo	81	94%
AtariPhile 1	Falcon FacTT File	DiskZine	83	93%
Isle of Glass	Goodman's PDL	Game	80	92%
PacShell 2.62	Goodman's PDL	Archiver shell	80	90%
Space Monsters	Goodman's PDL	Game	80	90%
Two-in-One 1.51e	Wonder Disk 81	Archiver shell	81	90%
Michigan Mike	LAPD	Game	82	89%
ToDo 1.01	Hensa	Organiser Utility	82	89%
Nishiram	LAPD	Game	81	89%
Songz 1.90	HENSA	Music database	81	89%
AstroGuide 4	Goodman's PDL	Astronomy utility	81	88%
Zorg 2.01	LAPD	Disk utility	80	85%
Mobsters City	Goodman's PDL	Game	83	84%
Train Set 2	Goodman's PDL	Game	80	83%
Route Finder 2.2	Wonder Disk 80	Route planner	80	82%
Rollercoaster Experience	Goodman's PDL	Game demo	81	82%
UDO 4	Cover Disk 82	Utility	83	81%
Look and See	HENSA	Graphics Utility	82	81%
List Font 2.1	FaST Club	Font utility	81	81%
Shrinking Wall Solitaire	LAPD	Game	83	80%
Annex	LAPD	Game	81	80%

Secret Weapon

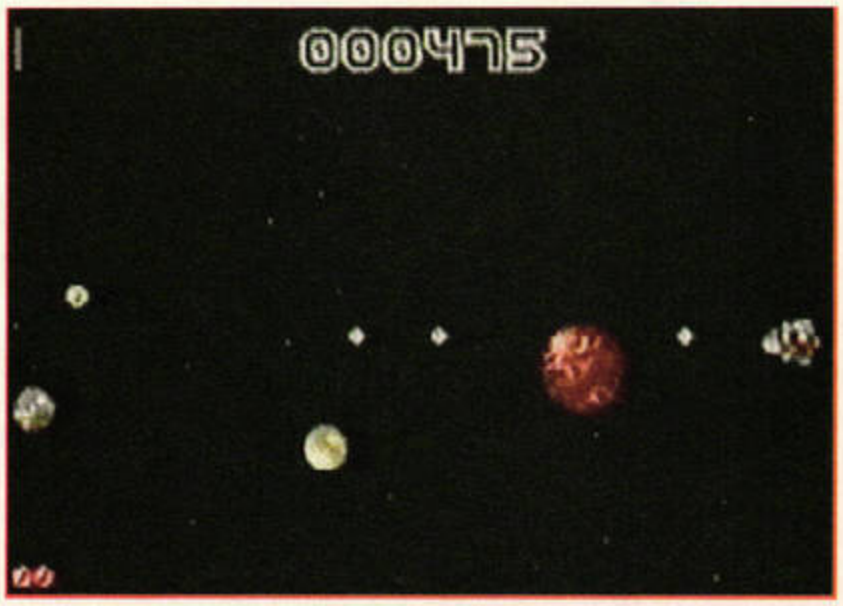
It's certainly secret and mysterious, but we were frustrated by the slow response, poor graphics and our sudden and inexplicable death.

All STs, Falcon with a separate disk

Secret Weapon is billed as a 3D mystery game. You are a night watchman who wakes up and discovers something is wrong, and must use the numeric keypad keys to move through different rooms and discover the source of the trouble. There may, indeed, even be a secret weapon, but the response is so slow and the view so poor that we didn't hang around to find out. In fact, we didn't have much choice, because we got mysteriously killed very quickly. We didn't like it, won't play it again and don't recommend it.

STF RATING: 28%

Astro 2000



Remember *Meteors?* Well, it's back, and this time in full colour. *Astro 2000* is a great new version of the arcade classic.

All STs

Meteors is back again in a slick new version by Simon Scott. For the uninitiated, you pilot a small space ship caught in a hellish meteor shower. The only way to survive is by blasting the rocks, or in this case, spheres, with your space ship's weapons.

You don't get killed as soon as an object hits you in this version, thank goodness – enough hits and you're history, but there is a little tolerance built in. However, the thruster system is still the same disaster it always was. Once you've used your thrusters, you can never stop moving again. The rationale is that you are in space, so that is how it must be, but it is annoying trying to turn your ship round to slow yourself down. Physics, pah.

Astro 2000 offers a number of bonuses and power-ups which can be used to make life more interesting, but be careful not to get killed in a vain effort to pick them up. Both 1Mb and 512K versions are supplied on the same disk.

This is a good version of the arcade classic and well worth a play.

STF RATING: 85%

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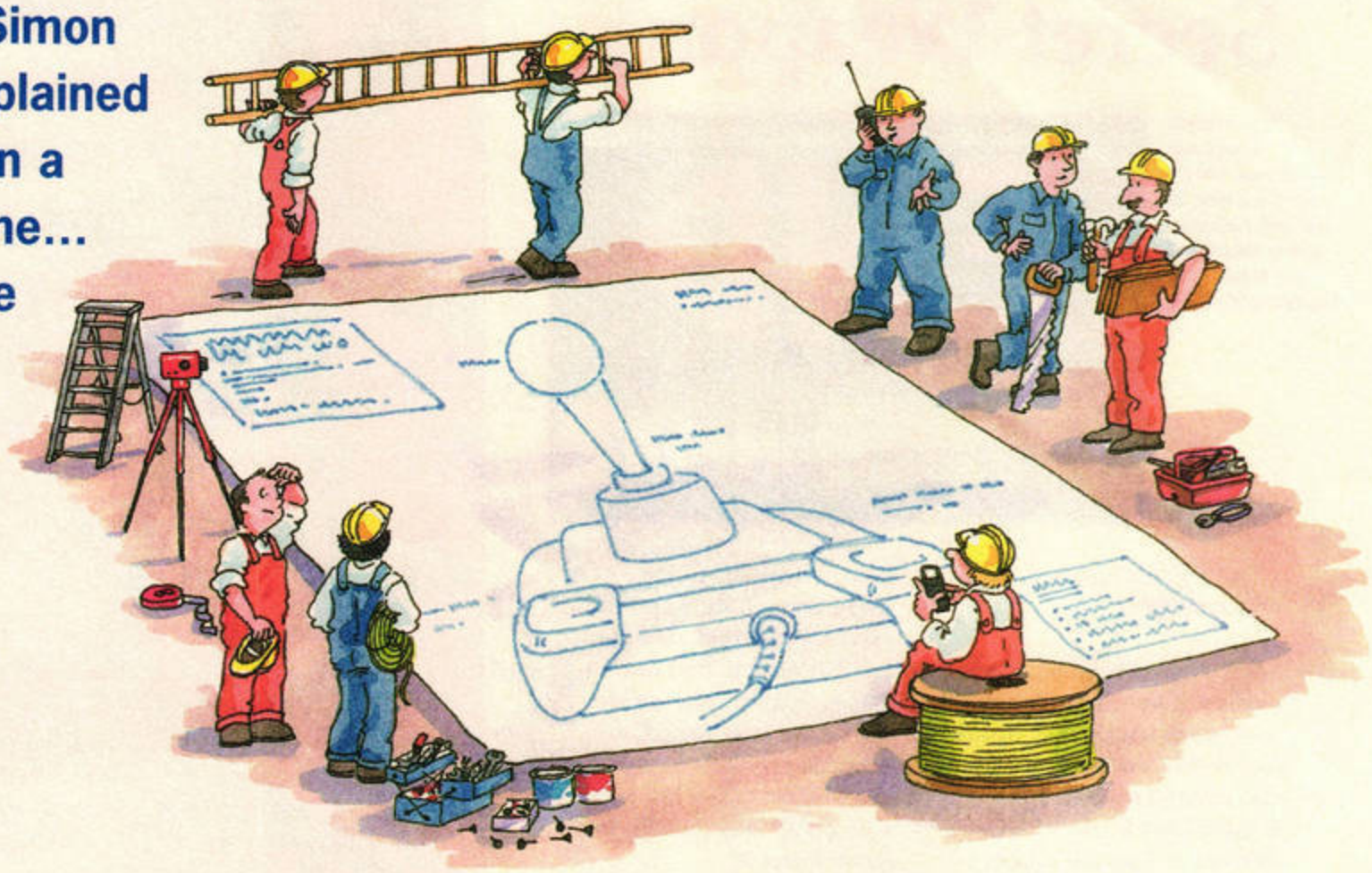
Last month Simon Forrester explained how to design a playable game... this month he shows you how to turn those plans into code.



Blueprint for fun

Last month we covered the relatively straightforward task of planning a game on paper. Sadly, sitting down and musing about the intricacies of game design is nothing compared to turning those ideas into a piece of software.

This month, then, we're going to undertake the latter task. Yes, it's time to put all that simple programming work you've done into practice and write one huge program. No, don't run away.

Writing a computer game isn't easy, but there are several ways to make things a great deal simpler. The first is to break it all up into little steps.

All the processes involved in the running of a game happen almost simultaneously – there are no clear borders between the enemy sprites moving, the program taking the player's input, collision detection and so on – but we'll look each part of the game's engine separately, in the order you'll have to write them.

The following instructions are specific to the game plan I've outlined in the Space: Big and Empty panel, but they're applicable to just about any game engine. We'll be working in *STOS*, because it seems to be the language of choice for first-time ST game writers.

How to code

You'll need a lot of programming experience to write a good computer game. This experience is invaluable, but you'll be coming up against a whole new obstacle with this project – speed.

It's comparatively easy to write a utility program to perform a specific function, because you don't have to worry how long it takes to complete the operation. Your spelling checker can't take half an hour to search through its dictionary, of course, but a second or so is acceptable.

With a computer game, this isn't the case – everything has to run incredibly quickly, because if your game runs too slowly, or slows down to cope with those extra sprites, it'll be unplayable.

Keep speed in mind every time you write a line of code and use the minimum number of commands to complete each task. As you work, you'll find yourself picking up new tricks to save those vital milliseconds – revise the rest of your program to work as quickly. Here are a few things to remember from the outset, though:

- **Don't use IF statements:** For some arcane reason, IF statements are incredibly slow. There are many ways to avoid them, such as the technique for vector calculation shown later.
- **Avoid subroutines:** If something can sit directly in the flow of the program, there's no need to waste time jumping to it. If the same routine is called several times, consider pasting it in directly – it takes up more memory, but it's faster. One GOSUB may not seem like much, but when it's executed five times a second you can lose a lot of time.
- **Stick to simple commands:** The more complex the function, the longer it'll take.
- **Write a bare-bones engine first:** You can add the frills once you know the system can handle them.

SPACE: BIG AND EMPTY

It's a good idea to start off simple, because no matter how basic your game idea is, your program will soon be a complex piece of spaghetti. Try to define your game's design in simple terms from the programming point of view, as I've done below.

Space game

The action takes place on a top-down (overhead view) arena made up of squares, 19 across by 13 down. Each square is the equivalent of two character squares, totalling sixteen pixels in each direction – the game runs in low resolution only. Each of these squares will contain an item or nothing at all.

The player takes the form of a joystick-controlled spaceman, interacting with solid obstacles, conveyor belts, keys, doors and all manner of other devices. These can be designed and coded once the main game engine is in place and running (you don't need to finish designing your game before you start coding).

The object of each level is to reach the exit square, the obstacles and interactive player objects providing the puzzle element. This is, essentially, a puzzle game.

The engine

So, this is the game's engine, then. To properly comprehend all that's going on, you'll have to assume the whole thing's already running several times per second as you write it.

It's this problem that makes game writing such a weird programming task – you're not writing small, separate chunks of code. Instead, you start with a completely empty loop and add more and more operations to it, until you have a finished game. (Before you get to this point, you should have displayed your backdrop on screen – see the Backdrops panel.)

You start with an empty loop and add more and more operations.

Input

The first thing you need to add is the player's input. This is probably the simplest of the tasks in the engine, although the more complex your game gets, the longer it'll take.

Basically, you need to read the joystick or keyboard to find out where the player wants his character to go. This involves keeping an eye out for the four directions a joystick can take – up, down, left and right.

STOS allows us to do this by running system variables containing the information. `JLEFT`, `JRIGHT`, `JUP` and `JDOWN` will each return `-1` if the joystick is being pushed in that direction, and `0` if it isn't. Alternatively, the `JOY` variable contains all of the information in a bitwise format – the binary number is split up into binary bits, each giving a result as either a `1` or a `0`.

Next, you have to turn this into a movement vector, in preparation for moving the sprite. This is done by multiplying each of *STOS's* `JDOWN` and `JRIGHT` results by `-1`. A `0` will remain `0`, whereas `-1` will turn into `+1`. You then add the left and right, and up and down, pairs of vectors together to obtain a movement vector for each axis.

Confused? The following chunk of listing reads the joystick and produces two variables, `vx` and `vy`. These variables can be added to your sprite's current position to produce the co-ordinates the player wishes to move to. We're assuming here that the player is moving a pixel at a time, by the way – for bigger steps, simply multiply `vx` and `vy` by the step size.

```
jl=JLEFT:jr=JRIGHT:ju=JUP:
jd=JDOWN                    (all one line)
vx=jl+(-1*jr)
vy=ju+(-1*jd)
```

You now have your vectors and are ready to move the sprite...

Sprite movement

...or are you? Before that sprite goes anywhere, you have to make sure it's allowed to. Checking whether the player is trying to run out of the playing area altogether is easy enough – just check whether the new co-ordinates are out of bounds, and don't move the player if they are.

Next, check whether there's anything in the player's way. Take a look at the Backdrop panel at this point for a description of one way to store the level data. You can read that back and, if there's something where the player wishes to move, destroy the movement vector (by setting it back to zero) to stop them.

Assuming the player is allowed to move in the specified direction, you have to both move and animate the sprite. In cartoon circles this amounts to the same thing, but here there's a distinct difference – when you move the sprite, you simply shift the graphic to another position on the screen. When you animate it, you actually change the graphic you're moving.

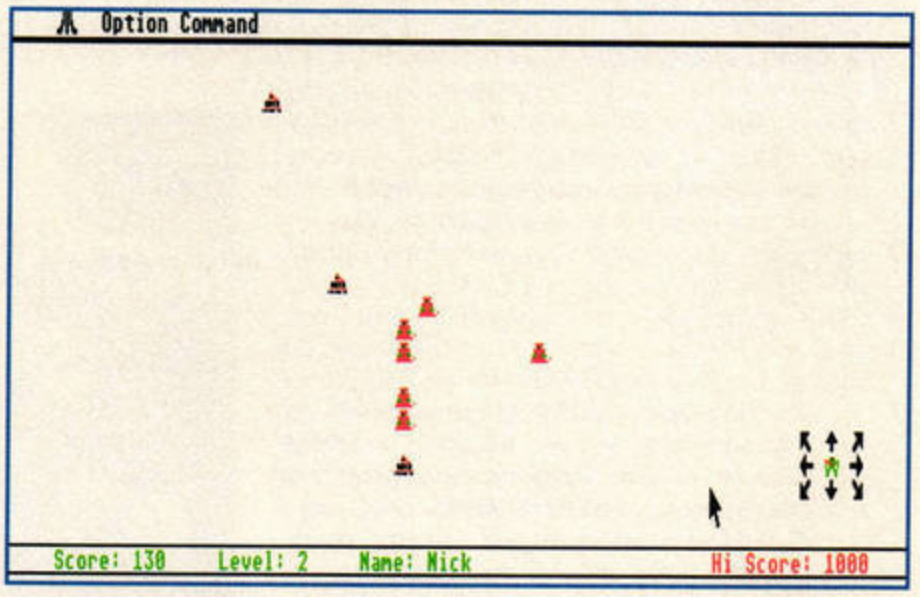
If a sprite of a walking man is only moving two pixels, you simply need to move the sprite and change the graphic to one showing the other foot position when it gets there. My space game requires the sprite, once moving, to travel the whole sixteen pixels to the next square, making a walking movement all the way – it's a puzzle game, so the player shouldn't have to worry about pixel-perfect accuracy. This is a fairly simple task, achieved using *STOS's* `ANIM` command.

This command refers to a string containing pairs of numbers, the first referring to an image number, the second to the length of time, in 50ths of a ➧

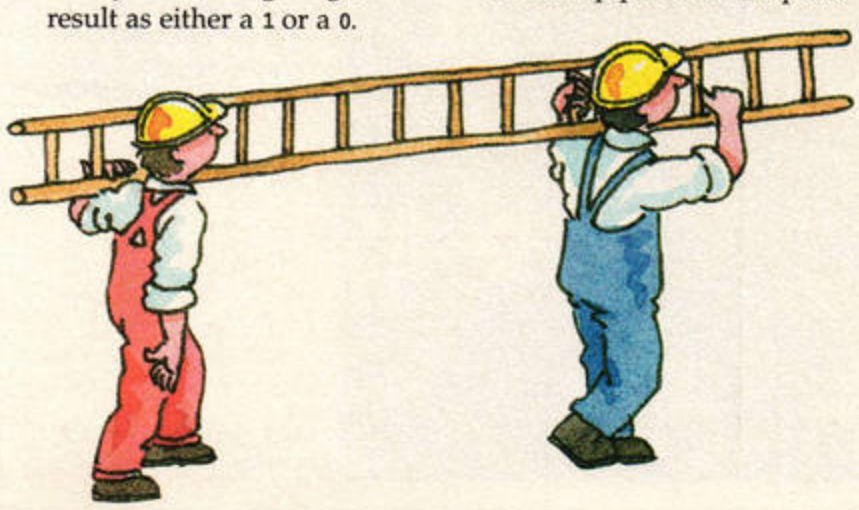
STOS – it's the language of choice for most ST game writers.

BACKDROPS

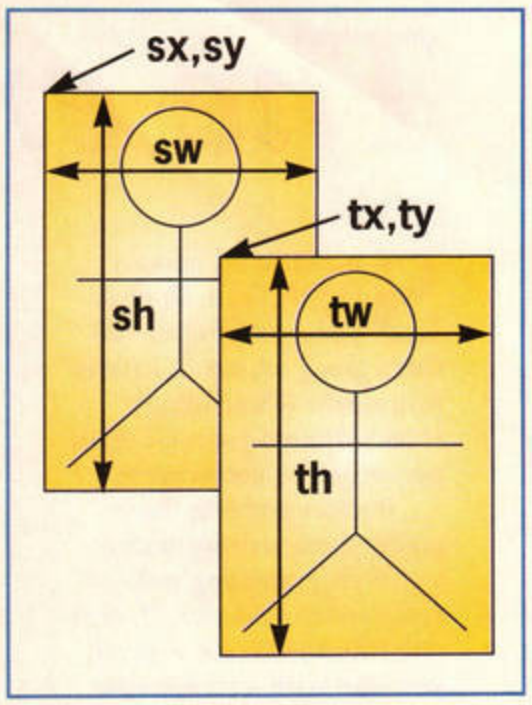
Before you set your all-important game engine running, you need an environment for the game to take place in. My space game is fairly simple in this respect, because it works strictly to a grid. This makes for uncomplicated level data – I can create a 3D numerical array with space for the data from 16 levels, each with 19 squares across and 13 down. Each slot contains a number, representing the contents of that particular square – it could be a blank space, a solid block, or any object I've assigned a value to. This system is handy for collision detection – the contents of any part of a level can be determined by a quick look at the variable.



Daleks: The bad guys in this game were stupid – they'd just do everything they could to get to you using a simple equation. And they couldn't go up stairs, either.



They're asteroids – bad things that don't give a toss who you are or why you're there. Hit them, however, and you're dead.



That mathematical collision detection idea (see opposite) in full.

second, that the sprite is supposed to be displayed for. If you're using images 10 and 11 as your frames, and sprite 1 as the player, the command looks like this:

```
ANIM 1,"(10,15)(11,15)L"
MOVE X 1,"(0,0,0)"
MOVE Y 1,"(3,2,8)"
```

Okay, I tried to slip the MOVE command in there, but you noticed. It works in very much the same way as the ANIM command, but uses three parameters – the step time (again, in 50ths of a second), the number of pixels moved and the number of times to move the sprite.

Already, you have a problem – these commands require strings, and constructing them could require IF statements. The answer is to dimension an array to cope with all three strings (for the ANIM, MOVE X, and MOVE Y commands) for four directions, and adapt your movement vector to produce a number from 1 to 4 to select the appropriate one:

```
jl=JLEFT:jr=JRIGHT:
  ju=JUP:jd=JDOWN    (one line)
jl=jl*-1:jr=jr*-1:
  ju=ju*-1:jd=jd*-1  (one line)
v=jl+jr*2+ju*4+jd*8
```

You may have to read up on binary, folks *(Help! – Nick)*.

Decisions

This is a difficult topic to discuss, because different game styles all have their own particular features. One thing that's common to most games is the enemy. Does your game have moving foes? If it does, the odds are they're going to have to act intelligently. Though this is essentially a game design point, its mechanics are deeply routed in programming and the amount that can be achieved in the fractions of a second you've got to spare.

Odds are your moving foes are going to have to act intelligently

There are a number of different techniques you can use:

- **Stupid:** Remember the game called *Daleks?* The enemy moved straight for you at all times. This is a simple technique – the Daleks need to work out whether you're higher or lower than them and move in that direction, then do the same along the x axis.

DESIGNING YOUR SPRITES

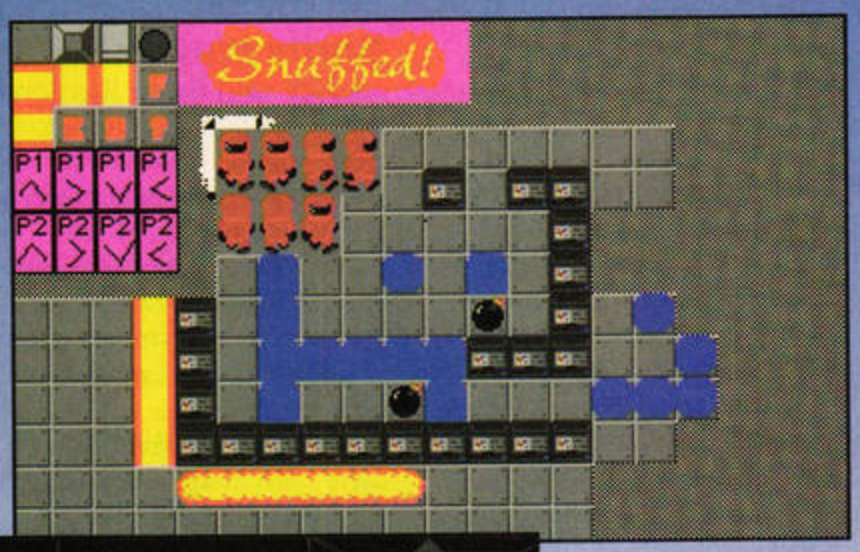
One of the first things you'll have to do is sit down with an art package or sprite designer (such as the one bundled with *STOS*) and design your sprites. These are the graphics that are displayed and animated on the screen, so it's worth spending some time on them – they contribute a lot to the aesthetic value of your final product.

Chances are each sprite will need several frames of animation. The spaceman featured here is my main game character, so he has eight in total. There are really only two in theory – the two different positions he assumes when he's walking – but he can walk in four directions, so you need eight sprites in total.

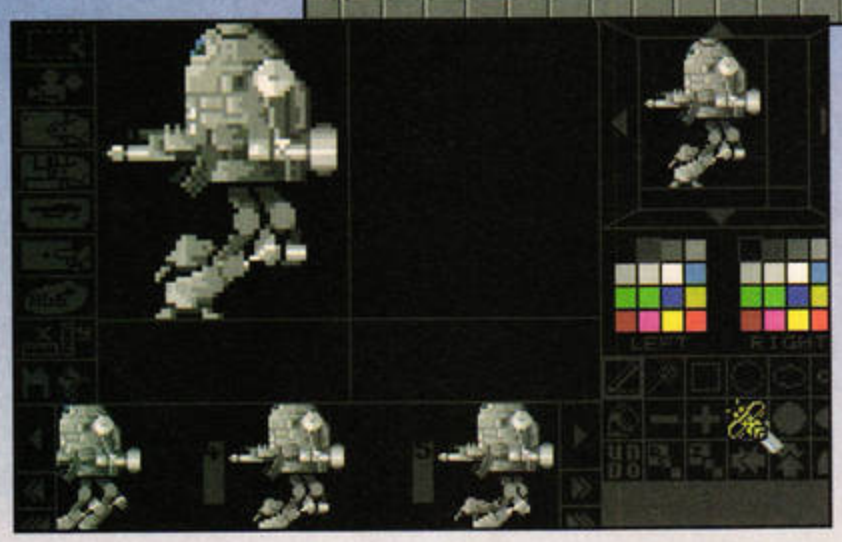
Each sprite is drawn on to a grid in one set of palette colours – there's a limit to the number of colours you can have on the screen at any one time (16 in low res, four in medium and two in high res), so all your sprites must use the same set. If they don't, you won't be able to display them together in their proper colours.

You'll notice that these sprites have been drawn on to a sheet of another solid colour. This is called a mask, and in my game it's ink 15. Masks are used because all sprites are essentially rectangular. If you showed a sprite with a black background, the rectangular shape would be cut out of the scenery. Instead, you give the sprites a background of one colour, and tell the sprite routine that colour is a mask ink. The sprite system makes that colour see-through, blending your sprites with the background.

Each language or authoring system has its own way of incorporating sprites – *STOS* has a separate program especially for designing and saving sprites in a suitable format. *GFA SpriteWorks*, along with most C and Pascal sprite engines, requires you to load your screen file and pick off the sprites manually, then save them out as a binary file.



Those elusive spaceman sprites on the screen. Note the pink background to the sprites – that's the mask ink.



STOS provides its own fully featured sprite designer.

PALETTE SWITCHING

10	11	12	10	11	12	10	11	12
10	11	12	10	11	12	10	11	12
10	11	12	10	11	12	10	11	12

If you want to save processor time (and memory), you can achieve some visual animation effects using palette switching. Let's say, for example, you used an overhead view of a conveyor belt. Instead of drawing three separate animations, one for each frame of movement, you could draw one, built up from solid stripes of colours 10, 11 and 12.

When your game is running, the second two inks are set to the background colour and the first is a darker stripe, as shown above. To create the effect of movement, all you need to do is set the first ink to the background colour, and the second to the darker stripe. Next, make the third ink the darker stripe. Instead of displaying new sprites and wasting time, you've simply swapped the inks around – a much quicker operation.

● **Pseudo:** The ghosts in *Pacman* don't care where you are, they just wander around at random. Logically, Pac was a snake with an invisible tail – when a ghost wandered over the tail, it'd follow it until it killed you. There are other tricks of simple decision-making that can make an enemy seem intelligent – the *Galaxian* will wobble around at the top of the screen until you're in the right spot, at which point it screams 'Banzai!'

● **Chess:** You could go in for serious computerised thought and problem solving on the enemy's behalf, but you'll never manage it without serious slowdown.

● **Ignorant:** If this is your first game, go for the cop-out option and fill your levels with wandering monsters that follow their predefined path, not caring who you are or whether they've hit you. The butterflies in *Boulderdash* are a good example.

Once you introduce the enemy sprite, you have to worry about collisions

Enemies

Of course, moving an enemy sprite uses exactly the same techniques as moving the player does. Once you introduce the enemy sprite to the equation, though, you have to worry about collision detection. Did you just bump into that monster from Cygnus? There are three ways to check for sprite collisions:

● **Use a package-specific system:** *STOS* comes with a perfectly serviceable COLLIDE command. You specify two sprites and obtain a flag result (a yes or no) which tells you whether they're touching.

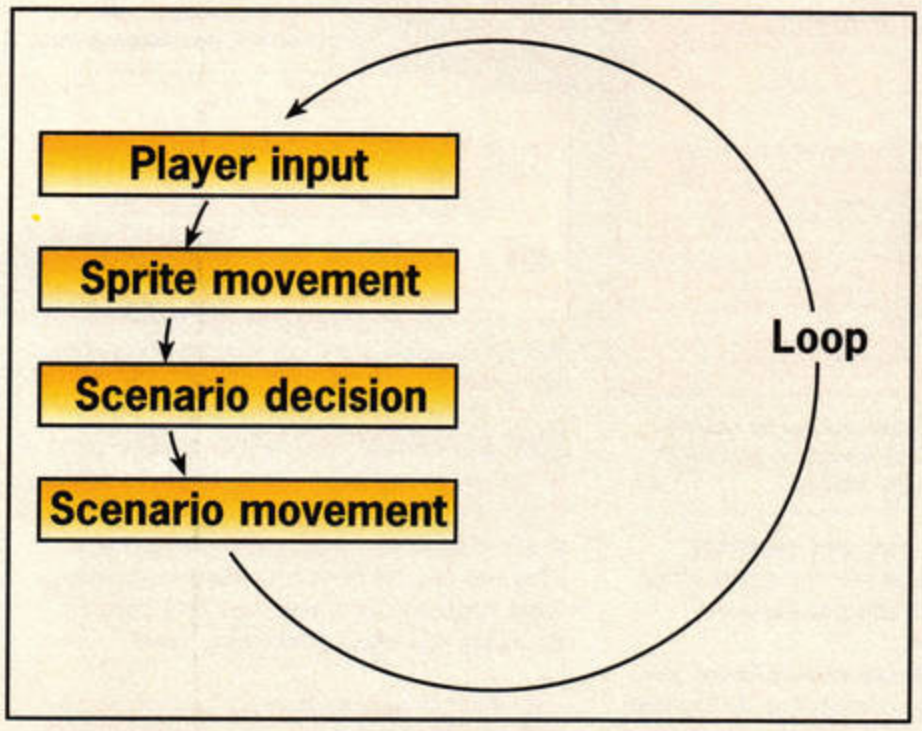
● **Check for pixels under your sprite:** This option works best if you've written your own machine code sprite system and your game takes place on a blank backdrop. Simply check whether the player's sprite overlaps pixels of any other colour.

● **Use maths:** If you don't have an automatic collision detection system, you can emulate one by working with the sprite's location (the top left corner represented by sx and sy), width and height (sw and sh). Look at the other sprites on the screen in turn (using tx, ty, tw and th), and check whether tx is anywhere between sx-tw and sx+sw. Next, check whether ty is anywhere between sy-th and sy+sh. Confused? See the diagram on the opposite page.

And loop

At this point, your main engine folds back in on itself – you jump back to reading the player's input. This feature folds in on itself, too – short of going through the hundreds of game-specific features and how to code them, there isn't much more we can tell you.

This feature is only an introduction, mind, because the majority of the thinking is up to you, the programmer. Should you possess both the stamina and mental instability to create a finished game, I look forward to reviewing it in a future issue. Until then, get coding – and try to remember that this is actually supposed to be fun. *stf*



Games are very simple, really: you just go round and round this loop until the player wins or loses. Then you go back to the beginning, and go round and round again.

SCROLLING

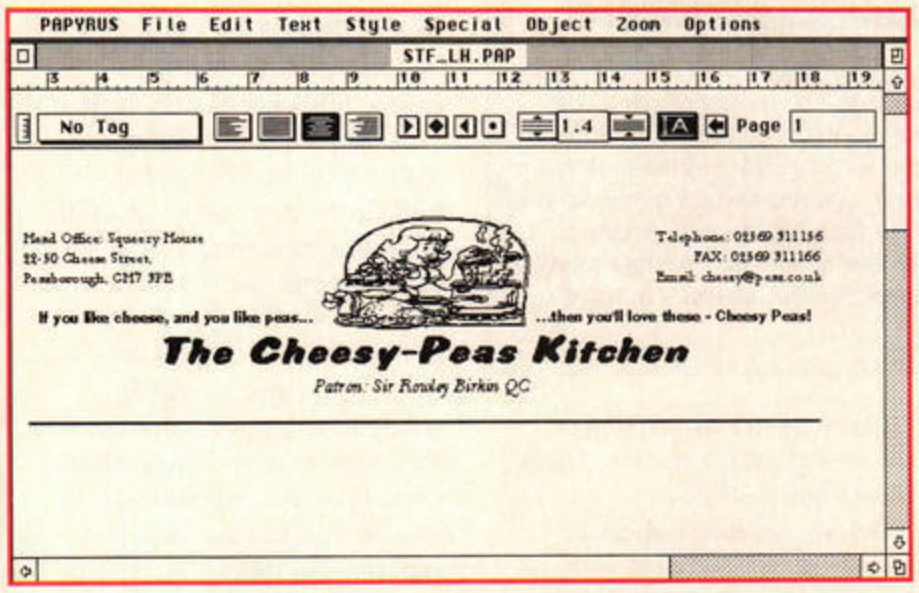
If you're writing an explorable game with levels that are bigger than the screen, you'll need to scroll the backdrop as the player reaches the edge. The alternative is to use flick-screens, which involves clearing the whole screen and drawing the next one, then moving the character to the opposite edge. This is perfectly acceptable, defining the gameplay for titles like *Prince of Persia*, but some games need to scroll smoothly.

Scrolling is a fairly simple, but it takes enough processor time to slow your game down. If this happens you'll need to revert to flick-screens, or find a new scroll routine. The third option is to reduce the size of the area that has to be scrolled – the larger the screen, the longer it takes. *STOS* users should find the SCROLL command adequate; other systems have their own solutions.

If you want to scroll the screen down by 16 pixels, for instance, you'll need to copy a block 16 pixels shorter than the scroll area's size from the top of the screen to the bottom. This will leave a gap (still filled with the old information) at the top of the screen, which you can fill with more background. You'll also have to move every sprite on the screen downwards by sixteen pixels, adding any new sprites to the top of the picture as you remove sprites that are now hidden at the bottom.

ST Answers

Back from two days in sunny Bath, Frank Charlton brings a fresh perspective to your ST problems. Mac Marsden and Denesh Bhabuta stayed at home.



Calligrapher may not be readily available, but *Papyrus* is – and it's much faster, too. It also supports *GDOS* and *SpeedoGDOS*, enabling you to use a wider variety of fonts.

WISE WORDS

Q I am considering upgrading my word processor to *Redacteur, Papyrus* or *Calligrapher*. Could you supply e-mail addresses for the companies that distribute these programs, especially *Redacteur* and *Calligrapher*. I have also had a great deal of trouble calling the FaST Club – there's never anyone at home. Can you suggest any times when someone is likely to be actually, physically there?
James Anderson, Australia, via e-mail

A *As far as we're aware,* Calligrapher *is no longer available. Working Title abandoned ST support a while back, and we don't know who, if anyone, currently has the rights to* Calligrapher. *As for the others, contact the FaST Club for* Redacteur. *If you're finding it hard to get through by phone, try e-mail:* stclub@cix.compulink.co.uk or fax: *+44 115 9455250.*

Papyrus *is distributed by HiSoft Systems. Send an e-mail to:* sales@hisoft.co.uk *for information, but be patient. The company has just started using this address and has a backlog of mail to answer.*

WEB WOES

Q Greetings from the land of the cricket gods, and thanks for the WWW Pack on the Issue 78 Cover Disk. Unfortunately I can't get it to work – I can connect to the server, but that's about it. When I run *CAB*, I get a message in the bottom right-hand corner of the screen, saying: "STiK not loaded".

I am running the software on a 2Mb STE with a double-sided disk drive and a SC1224 monitor, but no hard drive.
K Vaughan, Australia, via e-mail

A *This is the standard error message produced by* CAB *when it can't find* STiK *or the* CAB *overlay file. If you're still using the older version from the Cover Disk, you need to make sure STIK.ACC is loaded from your boot disk. The file CAB.OVL must also be in the same folder as* CAB *itself.*

Newer versions of STiK *work slightly differently. Rather than the Accessory inserting its entry into the TOS Cookie Jar (very naughty), it uses a separate Auto folder program called STIKTSR.PRG. If this is missing, you'll get the kind of errors you're suffering from.*

If you're sure all files are in the right place, there's one last thing to try. Once your machine has finished booting, wake up the STiK *Accessory before you load* CAB *for the first time. Just open the STiK window, then close it, to initialise the CAB.OVL file.*

SHAREWARE SOLUTIONS with Denesh Bhabuta

If you have any questions about PD and shareware, write to: Shareware Solutions, *ST FORMAT*, Future Publishing, 30 Monmouth St, Bath BA1 2BW, or send an e-mail to: dbhabuta@cix.compulink.co.uk. Please put STA in the subject line of your message.

However, as this is a new bi-monthly column, the postbag is completely empty. Here are the answers to a few of the most common PD and shareware questions.

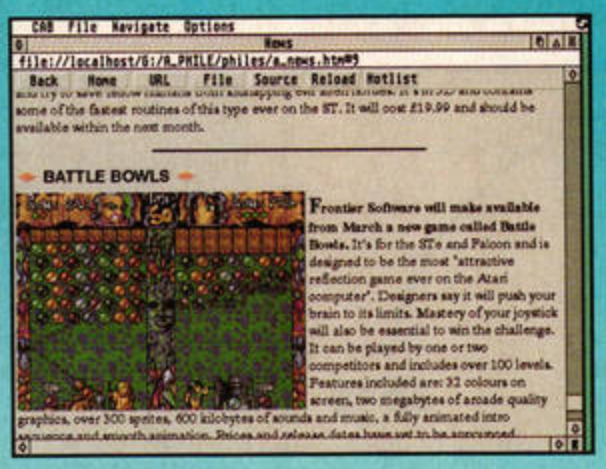
WHAT IS SHAREWARE?

Q What is shareware? Do I really have to register the programs?

A *The best definition I have come across is in Mark Baines' book* The Atari A To Z. *He says: "Shareware programs are commercial programs... The programmer retains copyright... allows the user to run the program for a specific amount of time... [and when the] time period is up, the user is under a legal obligation to pay the shareware fee. If the user doesn't then he must delete the program as he will be unauthorised to use it."*

Shareware can also be called 'Try before you buy' software and is distributed via the Internet, BBSs, PD libraries and magazine cover disks. Shareware is also known by other names, including Postcardware, Keyware, Demoware and Giftware.

Freeware and public domain software, on the other hand, places no obligation on the user. You do not have to pay a fee to continue to use the program, but programmers do not turn down any voluntary contributions.



CAB: a commercial-quality Web browser for peanuts. Even club magazines, such as the Falcon Fact File's updates, are available in HTML format.

Dan Ackerman's e-mail utility, *Antmail*, is one of the latest additions to the *Internet Access Pack*.

THE INTERNET ACCESS PACK

Q I am confused by the new pricing structure for the *Internet Access Pack*. Can I send a single cheque to cover the whole package, or do I have to pay for the components separately? What happens about updates? Do I have to download the whole pack every time?

A *A lot of people seem to be confused by this. Basically, you can no longer pay one person for the whole package – you have to register the separate components with the*

GFA WORKSHOP with Mac Marsden

If you have any questions for Mac, write to: GFA Workshop, *ST FORMAT*, Future Publishing, 30 Monmouth St, Bath BA1 2BW, or send an e-mail to: mac.marsden@dial.pipex.com.

NEVER TOO OLD

Q Now that I am a pensioner with time on my hands, I have taken up computing. I have been using an Atari for a little over two years, first playing games and recently experimenting with *GFA Basic*. To this end I am trying to write a program which stores details of my other hobby, philately (stamp collecting). I would like to be able to type in text and then convert it to upper case. How would I do this? I would be grateful if you could provide a little code.
Alan Sharpe, Burghfield Common, Reading

***A** Alan, I am very pleased to hear from a youngster! There are two solutions to your problem:*
1 Set up `BIOS(11,4)` *to turn Caps Lock on when you start your program, so any text you type in is in in upper case. The trouble with this solution is that Caps Lock can be turned off manually.*
2 The second and more reliable solution is to change all the text to upper case after it has been entered. The listing below prints the lower case text held in `A$`*, then changes it to upper case and reprints it.* `A$` *at this point contains* `ST FORMAT THE ATARI COMPUTER MAGAZINE`*. You can then save the altered string to disk.*

```
!Example program altering case
A$ = "st format the atari computer
      magazine"                    (all one line)
PRINT A$
A$ = upper$(A$)
PRINT A$
```

ALTERNATIVE TEXT

Q Are there any commands which will enable me to display text at graphic coordinates?
James Collins, Newcastle-upon-Tyne

***A** James, the commands you are looking for are* `ACHAR` *and* `ATEXT`*.* `ACHAR` *will output a single character to a graphic's coordinate, and* `ATEXT` *will output a full string. The syntax is:*

```
ACHAR code, x, y, font, style, angle
```

where `code` *is the ASCII value of the character to be displayed;* `x` *and* `y` *are the top left coordinates of the character;* `font` *is a number from 0 to 2, where 0 is the icon font, 1 is the normal font for colour and 2 is the normal monochrome font;* `style` *is a number from 0 to 255; and* `angle` *is either 0, 900, 1,800 or 2,700.*

So, if you wanted to display an 'A', you would use something like:

```
ACHAR 64,100,100,1,30,2700
```

The `ATEXT` *command outputs character strings at arbitrary screen positions but, unlike* `ACHAR`*, no character style or output angle can be specified. These missing parameters may be set up using* `DEFTEXT`*. The* `ATEXT` *syntax is as follows:*

```
ATEXT x, y, font, s$
```

where `s$` *is the string you wish to display and* `x, y` *and* `font` *are the same as for* `ACHAR`*. Thus the command:*

```
ATEXT 100,100,1,"ST FORMAT"
```

will print the string at graphic coordinates 100, 100 in font 1.

PRONTO PRINTING

Q I would like to be able to take a one-line string and send it to the the printer. Is there a command in *GFA Basic* which will enable me to do this?
Philip Broadfield, Exeter.

***A** Philip, the command you are after is* `LPRINT` *and it is used exactly as you use* `PRINT`*. The only difference is that* `LPRINT` *redirects the output to the printer.*

POWER-UPS

Q I have an Atari 1040STF which I used to use in Singapore, running on the standard 240V supply. Now I have moved to the United States to study.

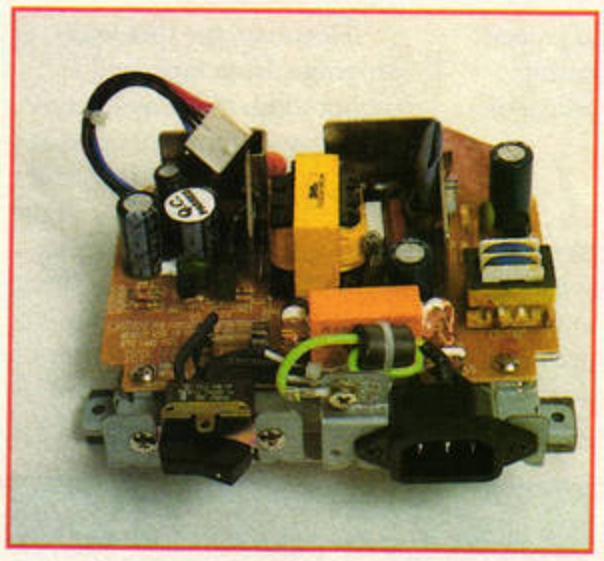
I want to continue using my ST, but the power here is 110V. Can I just change the power supply to a 110V unit and use my system here? I have brought it all the way to America thinking it can be done, but I have to ask you first because you know best.
Rajesh Rekhraj, via e-mail

***A** Rajesh, the good news is that it's possible to do what you want. You'll need to get hold of a USA-specification ST internal power supply, though. One option is to post a message in the* comp.sys.atari.st *Internet newsgroup. Someone may have a broken ST which you could cannibalise.*

Alternatively, America's largest Atari retailer is Toad appropriate people. Here is a breakdown:

Program	Register With	Price
CAB	InterActive	£6
STiK	CyberSTrider	£5
CAB.OVL	CyberSTrider	£6
Telnet	CyberSTrider	£6
Antmail	CyberSTrider	£8
Setup	Guy Harrison	£5

All prices are the suggested minimum fee. The different components are also available separately in their own archives, so you don't need to download the complete archive when one part is updated.



The ST power supply is easily removed, so you can replace it if you move to a country with a different electrical voltage.

U DON'T BELIEVE IT?

Q I have tried out the *UDO* to HTML conversion and frankly I am disappointed. Every node and subnode creates a HTM file. This must be a joke.

***A** Fear not, this has been looked into. UDO 5, which is now available, has some new commands, including:* `!html_merge_nodes`, `!html_merge_subnodes` *and* `!html_merge_subsubnodes`*. This means you can now read more than one chapter in a file. You can also use* `!htmlname` *to tell UDO how to name a file that contains a chapter.*

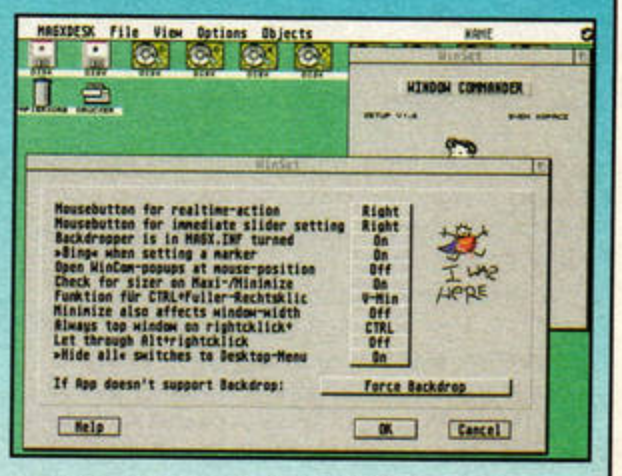
UDO is also available for DOS/Windows on the PC and Linux. It will soon be available on the Mac and Amiga, too.

UDO 5 has many more conversion formats than the previous version and offers better HTML handling.

OUT THE WINDOW

Q Before I started using the *MagiC* operating system, I was using the *WinX* patch with TOS and GEM, and now I miss its features. Is there an alternative for *MagiC*?

A You need *Window Commander (WinCom)*. It offers many window functions via the mouse and hot-keys and includes the real-time functions that you are used to from *WinX*, plus many other features. It runs under *MagiC 2* through 4 and even under *MagiCMac*. *WinCom* is shareware and costs £10 to register in the UK.



Relive those *WinX* days with *Window Commander!*

Computers, and it may be able to source a new or refurbished power supply for you – call ☎ 800 4488623, or send an e-mail to: info@toad.net.

The only snag is the differing television standards. I don't know which system Singapore uses for broadcast television, so I can't say for sure, but the modulator output probably won't work. You'll need a dedicated monitor – an RGB one, because the composite video output won't function either. With a replacement PSU and monitor, your ST should run perfectly.

JUMP FOR JOY

Q Whenever I boot up my 1040STE with the joystick attached, the Desktop appears but nothing happens when I click the mouse or use the ALT and cursor keys. Without the joystick, everything is fine – except I can't play games which require a joystick. I borrowed a friend's joystick to no avail, but there were no problems with a Sega joypad.

Also, re Pixel Painting: what are the rules and conditions for entry?

Tony, St Helens

A *Do both the joysticks you tried have auto-fire switches, by any chance? This problem has cropped up quite a few times over the years – some STs don't get on with some auto-firing joysticks. The solution is to disable the auto-fire or use a standard joystick. The Sega pad doesn't have auto-fire, which is why you didn't have any problems with it.*

Basically, auto-fire sends the same signal as a right-button mouse click, over and over again, when the joystick's fire button is held down. Occasionally, it can send spurious signals when you aren't even touching the stick.

As for Pixel Painting, the rules are simple: make sure it's all your own work, and don't copy anything which infringes anyone's copyright. Other than that, be creative and send in your pics with a brief note about how they were created.

MUL8?

Q I have an Atari 1040STE upgraded to 4Mb and an old Commodore 64. Recently I bought a PD emulator that enables the Atari to emulate the Commodore 64.

However, the C64 loads programs from tape, and I cannot think of a way to copy the many Commodore games I have on to a standard ST disk so that I can load them into the Atari and run them under the emulator. The tape is too slow for my impatient children.

Is there any way to connect the two computers and port the software across? If not, is there anyone who can provide this service?

Richard Hayden, West Sussex

The humble Commodore 64 is a venerable machine, but you can't connect it to an ST. Why not play ST games instead?

A *The Commodore 64 'emulator' isn't as fully-featured as some of the other emulators for the ST, particularly the Spectrum emulators. It's really nothing more than an environment for* Commodore Basic *programs.*

The Speccy emulators have a sizable following, but we don't know of anyone who has ever managed to get anything to run under the C64 emulator other than some very simple typed-in listings. Sadly, there's no way to hook up the two machines as you describe, either. If you want to keep the kids sane, you could always look out for a secondhand floppy drive for the C64. Or get them some ST games – most PD libraries have a wide selection.

BACK IT UP!

Q I have a 520STFM expanded to 1Mb. Reading through some of my copies of *ST FORMAT*, I realise I must have a double-sided disk drive, because I can copy the Cover Disk. Is there a way to tell whether I have a high-density drive without stripping the computer?

I also have a similar problem to P Kovacs in issue 81, in that I have a Supra 20MByte hard drive, and I have somehow blanked the floppy disk, so I have no way of starting the hard drive up.

Leslie G Swaffer, Maidstone

A *Unless either you or any previous owners of your STFM had a high-density drive fitted, you don't have one, Leslie. The high-density mechanisms were only fitted as*

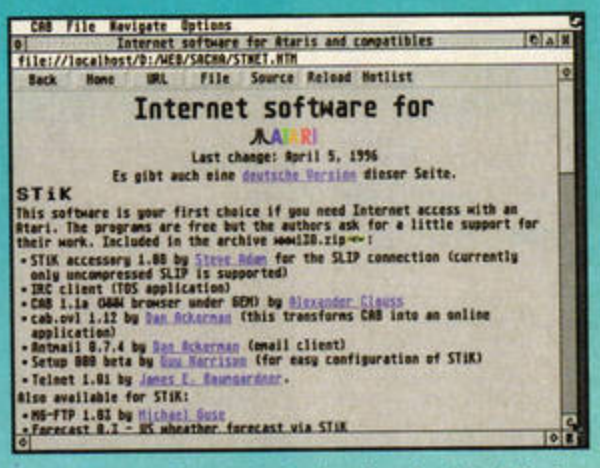
ALT.COMMS.STF@ with Frank Charlton

The ever-increasing Atari presence on the Web, coupled with the new all-singing versions of *CAB*, means there's never been a better time for surfing through cyberspace with your ST. To this end, we're going to alternate this column between the usual question and answer sessions and reviews of Web sites, using a similar format to our sister publication *The .net Directory*.

Every month, we'll award one Atari site the virtual equivalent of the coveted *ST FORMAT* Gold award, complete with a badge the authors can display on the Web page. If you'd like to nominate your favourite site, or have any suggestions for themes we could cover – humour, sci-fi and so on – drop me a line at: alt.comms.stf@, *ST FORMAT*, Future Publishing, 30 Monmouth St, Bath BA1 2BW. Alternatively, send an e-mail to: de18@dial.pipex.com.

SURF THE NET

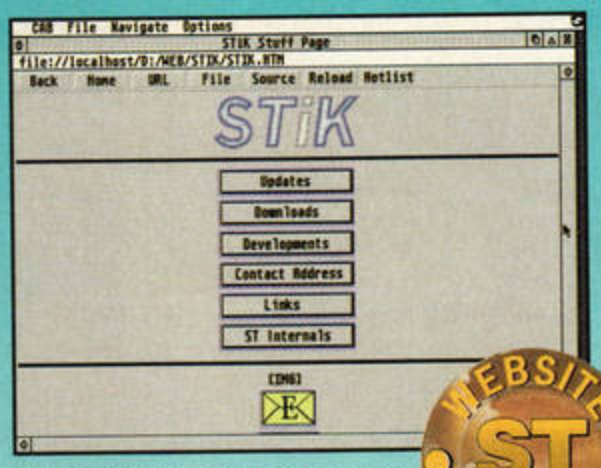
Page: Sacha's Atari Internet Pages
What is it? Pointers to Atari Internet resources.
Where you'll find it: http://localhost.ruhr.de/~sacha/index_e.html
What's it like? Nice and quick to load, because the author hasn't gone bonkers with pretty graphics. It's fairly minimalist actually, and all the better for it. Sacha has compiled an easy-to-navigate set of pages, pointing to all the Internet software you'll ever need to get your ST connected. It's available in English and German.
Upside: Nice and fast.
Downside: No mention of Oasis.
***STF* Rating:** 77%



Sacha's Pages: Simple design, but there's a lot of Atari-related Internet information here.

STIK IT OUT

Page: The STiK Stuff Pages
What is it? Everything you need for *STiK*.
Where you'll find it: http://www.unn.ac.uk/~cju920/
What's it like? Recently given a small graphical overhaul, the *STiK* pages provide a central point for information relating to *STiK* and the various clients that work with it. From here you can follow news on latest developments, keep track of what's on the horizon and download every piece of *STiK*-related software, from the latest version of *CAB* to *AntMail*, the new POP3 e-mail system.
Upside: Updated frequently.
Downside: Still needs a more striking design.
***STF* Rating:** 90%



STiK Stuff: Bookmark this site to keep track of the latest developments.

WEBSITE ST FORMAT AWARD

```
Supra Hard Disk Utilities v3.11
By
Willie Brown
(c)1986-89 Supra Corporation

ZERO   Zero a specific partition
MAP    Map out bad sectors in a partition
BOOT   Enable/Disable hard disk self boot
QUIT   Return to desktop
```

Always back up disks containing important files, such as your hard disk drivers.

standard to some MegaSTE models and all TTs and Falcons. Even the standard STE didn't have one, let alone the STFM.

As for your hard drive problem, I know this doesn't help you now, but you really should have made at least one backup of such an important disk. Thankfully we're able to get you out of a scrape in this instance. The company has kindly provided us with a copy of the old Supra hard drive utilities disk, including the boot program, which we have sent on to you. Make sure you make a few copies this time!

COOL AS ICE

Q Your descriptions of the programs *Oasis 2* and *ICE* in issue 81 were very promising. I would like to buy these two programs – is it possible to get them from you on a disk as soon as they are available? I am not yet connected to the Internet.

Dr J Heinzer, Switzerland

A *We'd certainly like to put the unregistered version of the shareware* Oasis 2 *suite on a future Cover Disk, but we can't promise anything. When it is finally released, authors Phil and Dave will be passing copies to all of the major PD libraries. You can be sure to pick it up from them, even if we can't squeeze it on to our disk. Keep your eyes on our News pages for the final release date.*

THE FRONTIER

Q I have *KnifeST*, and have been using it to try to change some of the stats in *Elite 2*, to make it a little more fun and interesting. I'm having a nightmare of a time, though.

I can change any name just by searching the main program, but when it comes to the hull size, internal capacity and thrust I have no idea at all. I have searched the program from beginning to end for the past three weeks, and it's driving me mad. Could I get another editor that will help?

Also, can you tell me if changing a program like this is illegal?

B Manning, Plymouth

A *First of all, never – NEVER – fiddle with the original copy of a commercial program with a powerful sector editor like* KnifeST. *Always work on a completely separate backup.*

Now, if you're trying to beef up your player statistics, you won't find them anywhere in the main program, because the stats are held in your save game files. While it's easy to change text strings, as you've discovered, finding the bits of data which correspond to hull size, internal capacity and thrust isn't easy, because they aren't in ASCII. Without knowing the game's file format (or a lot of experimentation), we can't say which bits you'd need to change. I'd leave KnifeST *well alone though, because while it's a powerful tool in the right hands, it can wreak untold havoc if you don't know what you're doing.*

On a slightly more helpful note, there was an Elite 2 *editor knocking about a while back, which you could use to alter your player stats. I know it exists, because I did have a copy, but despite having spent two hours plundering the Internet and various bulletin boards, I can't find it anywhere. I suggest you request catalogues from the usual PD libraries (see page 53) and have a hunt for it.*

As for the legality of what you're doing, you certainly mustn't distribute your hacked files. If you're working on a personal backup and don't ever give copies away, you're probably okay.

SCANNERS

Q I would like to know whether it is possible to connect any A4 flatbed scanner to my ST using the TopLink SCSI interface that came with my TUS hard drive. I have noticed some very cheap scanners in the PC magazines (around £300), but I'm concerned about compatibility and availability of suitable software.

Second, I remember reading about a new graphics card for the ST range a little while ago. Have there been any further developments?

L J Russell, Ramsgate

DEADLY NIGHTSHADE

Page: Digi Tallis Home Page
What is it? Home of Atari coders Digi Tallis.
Where you'll find it: http://www.geocities.com/SiliconValley/6273/
What's it like? Not at all bad, actually. This is the Web hideaway of the programming team which brought us the *Retinal Burn* demo. More recent offerings include the underwater shoot-'em-up *SubAqua*. Digi Tallis has an on-going project, too: *KillThings*. It's an attempt to create the first texture-mapped *Doom*-type game for the ST. The team could do with some support, so get on-line and send them your feedback.
Upside: Plenty of bits to download.
Downside: A bit bland.
***STF* Rating:** 80%

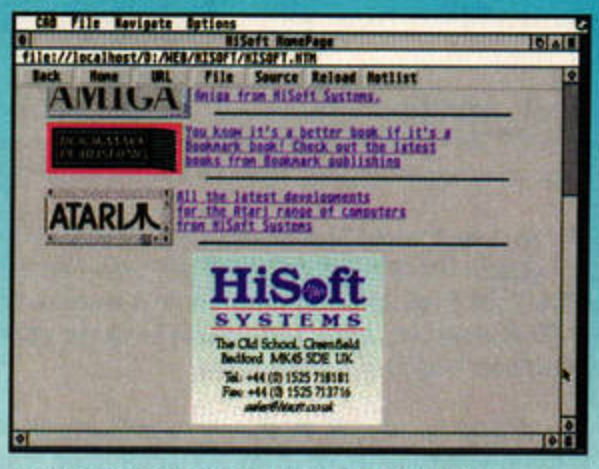
The Digi Tallis page, home to *Sub Aqua*'s programmers.

SYSTEMATIC

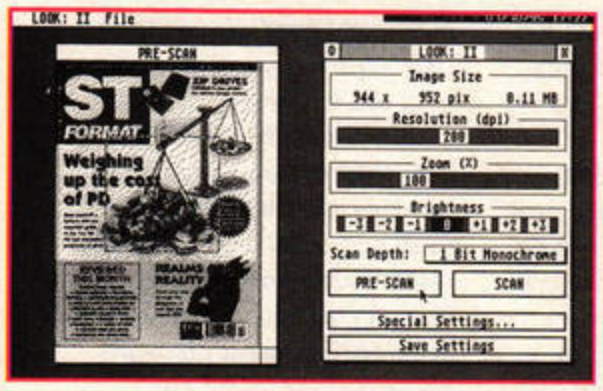
Page: System Solutions
What is it? Home page of the UK's biggest Atari retailer.
Where you'll find it: http://www.ssolutions.com
What's it like? Smartly dressed, as you'd expect from a company with a solid background in design – check out its printed catalogue. The colour scheme is a bit odd, but the pages themselves are stuffed with information about almost everything System Solutions sells. A few more screen grabs and colour pictures wouldn't go amiss, though.
Upside: Packed with information about products new and old.
Downside: Downloads can be slow.
***STF* Rating:** 85%

HISOFT HIJINKS

Page: HiSoft Systems
What is it? Web site of the company that brought you *Twist*, *Papyrus* and the VideoMaster.
Where you'll find it: http://www.hisoft.co.uk
What's it like? Slow – there are some hefty images embedded in these pages, and they take a while to arrive even if you have a fast modem. Other than that, the design is excellent, with screen grabs and pictures of every piece of Atari hardware and software HiSoft produces. All the Atari stuff is on one page though, so expect a long wait for everything to appear.
Upside: A mine of information.
Downside: Too slow unless you have a 28.8bps modem link.
STF Rating: 78%



HiSoft: Big graphics, big design, big phone bill.



System Solutions' GT-Look works with the Epson scanners to provide full-colour A4 page grabbing.

A *Almost all flatbed scanners use the computer's SCSI interface so, in theory, it should be possible to connect them to an ST. However, software is likely to be a problem.*

The only package we know of is GT-Look *from System Solutions, which works with the Epson range of scanners. We don't know whether it would work with another scanner – try calling System Solutions' technical people on ☎ 0181 6933355.*

While you're on the telephone, ask about graphics cards. The Panther card you mention should be available from System Solutions very soon.

PPP-PLEASE

Q Are there any Internet programs for the Atari which support the PPP protocol? *STiK* doesn't, so I can't use it with my local service provider.
Dave Dexter, California, via e-mail

A *Good old* AtariNOS *supports PPP connections, and* STiK *developer Dan Ackerman tells us the PPP protocol is likely to be implemented in* STiK *very soon – possibly by the time you read this. Dan is concentrating on tweaking his* AntMail *e-mailer, but will get to work on the PPP system as soon as he's finished.*

PPP support is also planned for the upcoming Oasis 2, *but the latest beta version (still unavailable outside the beta-test mob, before you ask) only works with SLIP connections.*

AtariNOS is currently the only Internet software which supports PPP connections without requiring a complex setup, such as MiNTnet.

TRANSPLANT

Q I have two Atari 520STs. Is it possible to take the memory out of one and put it into the other, so I have a full 1Mb of memory? If it is possible, could you tell me which part the memory is, and where I should put it?
Tomi Jarvela, Finland

A *You don't say whether your machines are of the STFM or STE breed, so there are two possible answers. If they're STFMs, the answer is no. The RAM chips in the STFM are soldered to the motherboard and you need a RAM expansion module to upgrade the memory.*

If they're STEs, the answer is yes. If you look just to the right of the power supply you'll see a separate section of the metal shielding. Remove the screws, take the shielding off and you'll find the SIMM sockets used by the STE. Sockets one and three will contain two 256K SIMMs.

Carefully remove the SIMMs from one ST, and transplant them into sockets two and four on the other. As always, be very careful when handling sensitive electronic components. A burst of static electricity can damage or destroy SIMMs, so always make sure you're properly earthed, and never touch the SIMM directly – handle it by the edge.

Reassemble your ST, and you have a 1Mb machine. Just don't forget which of the two has all the memory, because your 0Mb machine won't be much use!

IT'S STOS!

Q Can you tell me how to read the second joystick port in *STOS*. I am writing a two-player game.
Lee Marsh, Stoke-on-Trent

A *Ooh, a* STOS *query! Haven't had one of these for ages. Anyway, as* STOS *itself doesn't support the ST's second joystick port – an oversight if there ever was one – you'll need a* STOS *extension. Les Greenhalgh, author of the excellent* BioHazard *game, created the* STOS Control *extension to solve this and many other shortcomings. You should be able to pick it up from almost any PD library – Goodman's (☎ 01782 335650) has a hefty* STOS *collection.*

MAGIC

Q I've heard about *MagiCMac* from my tutor at college, but I missed the issue of *ST FORMAT* where you covered it. Will it run on the new PowerPC Macintosh I'm buying later this year? Just how compatible is it? Will it run all Atari software? Can it use Atari hardware?
Johnny Ludlow, via e-mail

A MagiCMac *was reviewed in issue 77 – why not turn to page 50 and order a back issue? Version 1.2.5 or later will run on a Power Macintosh.*

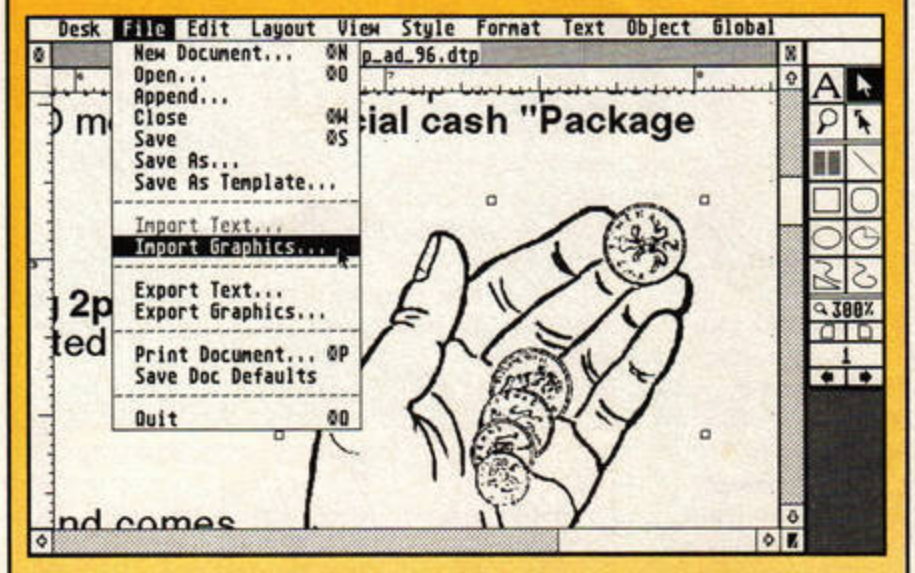
MagiCMac *isn't an Atari emulator, it's an Atari-compatible operating system for the Mac. It runs all well-behaved GEM software, as long as the program doesn't attempt to access the non-existent ST hardware directly. Programs which use standard operating system calls to carry out functions are generally all right, and you'll be amazed how fast they run.*

Games and hardware-specific items – such as MIDI sequencers – are out, because the Mac doesn't have built-in MIDI ports. The only pieces of hardware you can reuse from your ST setup are the printer and modem.

Modem access is fine and well-behaved comms software, such as ConNect, *works perfectly. Since the Mac has a serial printer port, as opposed to the ST's parallel one, you need a device called* PowerPrint *to connect an ST printer. Call System Solutions on ☎ 0181 6933355 for details.* **stf**

Make your Mac behave like a very fast Atari with the *MagiCMac* operating system.

LIVING COLOUR



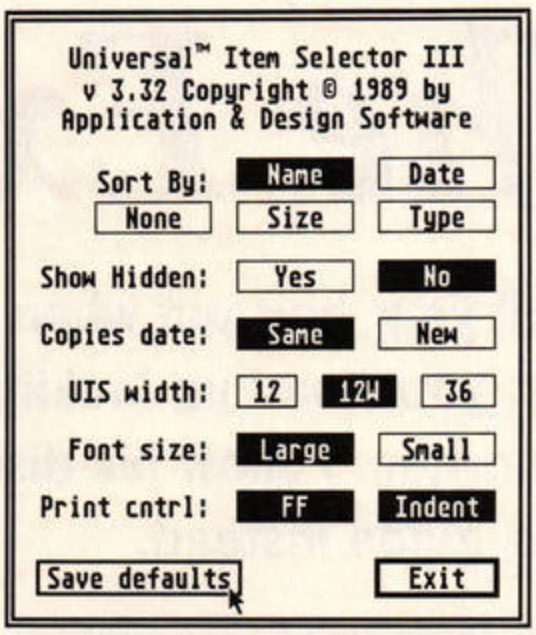
Thanks to R Harrison's tip, we now know where to go for *Pagestream* printer drivers.

Q So John E Nicholls is having problems using his Epson Stylus Colour printer with *Pagestream* (*STF* 82)? You can tell he doesn't subscribe to the FaST Club, because if he did he'd know the driver he needs is on its PD disk NW.19, which will set him back the princely sum of £1.25.
R Harrison, Halifax

A *Thanks for that, R. Obviously I can't keep track of every single development, which is why it's great when readers write in with solutions and tips like yours.*

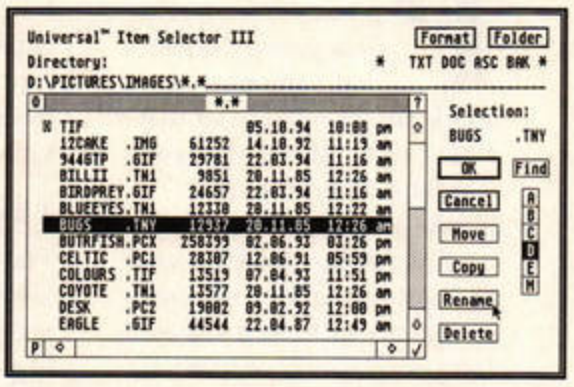
Troubled, traumatised or otherwise stuck for an ST solution? Send your questions to Clive Parker lookalike Frank Charlton at: ST Answers, ST FORMAT, Future Publishing, 30 Monmouth St, Bath BA1 2BW. Alternatively, send an e-mail to: de18@dial.pipex.com. Please put STA in the subject line. HiSoft C Centre returns next month.

Absolute beginners



Universal Item Selector also lets you define all kinds of options, including the files to be displayed and the font size. It even enables you to print files.

You need to be able to open files to use any serious program. Peter Crush explains the what, why and how of file selection.



The *Universal Item Selector* provides more information than Atari's version, and can format disks and create folders, operations usually only possible from the Desktop.

What's this file selection thing all about, then? Surprisingly, the official Atari ST handbook fails to mention the file selector, so it's often something of a mystery to new users. Nevertheless, mastering the file selector is essential for any serious use of your Atari. Here's how it works.

Why you need it

When you run a program like a word processor or database, there comes a time when you want to load or save a document or data file. The dialog box that appears on your screen is the 'file selector' – it displays lists of files, enabling you to select a particular document. You simply click on the one you want. The same file selector also lets you name a document or database file, so you can save it on to a disk.

That's basically what file selectors do, but there's a bit more to it. The original Atari file selector is part of TOS, your ST's operating system. Depending on the version of TOS built into your machine, the resident selector varies from pretty poor to just about adequate. Luckily, you can replace Atari's version with one of the many better alternatives.

You really should replace your built-in file selector with a better one.

Replacements

The Atari file selector used in our illustrations does its job, in a basic kind of way, but some of the earlier versions are almost useless. The best course of action is to replace them with a public domain alterative, such as *Boxkite* or *Selectric*, or a commercial file selector, such as FaST Club's *Universal Item Selector III*.

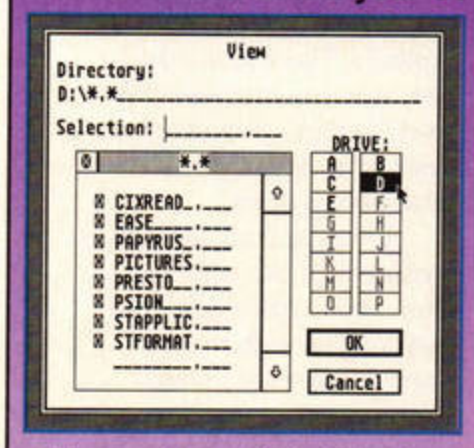
These programs have to be placed in your ST's Auto folder (see *STF* 82). Each time you access a file, the replacement file selector pops up in place of the Atari one. Replacement selectors can be obtained from any PD library, and you'll even find them on old *ST FORMAT* Cover Disks.

While Atari's file selector only shows file names, the alternatives can display a lot more information, including the file's date and size. You can also sort them in various ways, including by size or date, as well as displaying them in alphabetical order. Some selectors enable you to make multiple selections (choose more than one file to work on) and assign file locations (or 'paths') to function keys for quick access.

You really should replace your built-in selector with a better one straight away – you'll be glad you did. *stf*

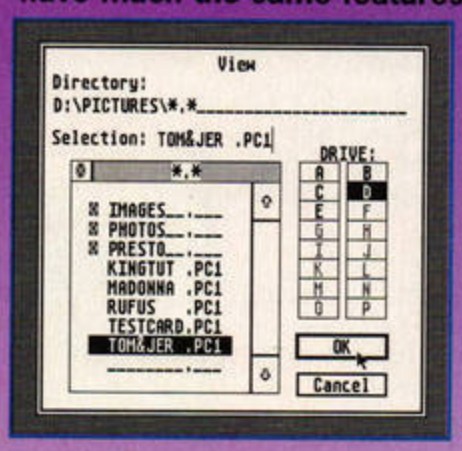
MAKING YOUR SELECTION

Let's take a quick look at the standard file selector found in TOS version 1.4. If your ST has some other version of TOS, your selector may look slightly different, but it will have much the same features.

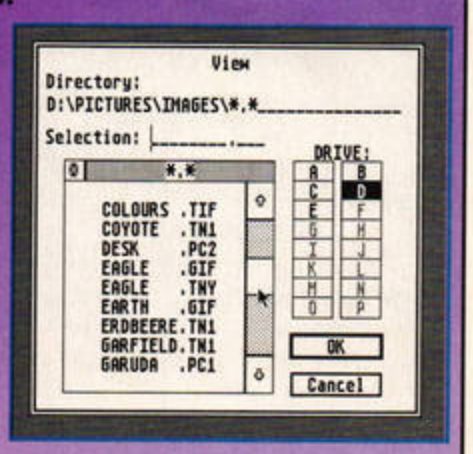


1 The square boxes with the letters A, B and so on inside them are drive indicator buttons. The black box indicates the drive that's currently active – if A is black, the files listed are those on your internal floppy drive A. If you want to see the files on hard drive D instead, just click on box D, as shown.

2 The items with a diamond-shaped design in front of them are folders – sub-directories which contain collections of files. To see what's inside one, click on its name. If you want to go back to the main disk, click on the Close button – the little box at the extreme left-hand end of the grey bar under Selection:.



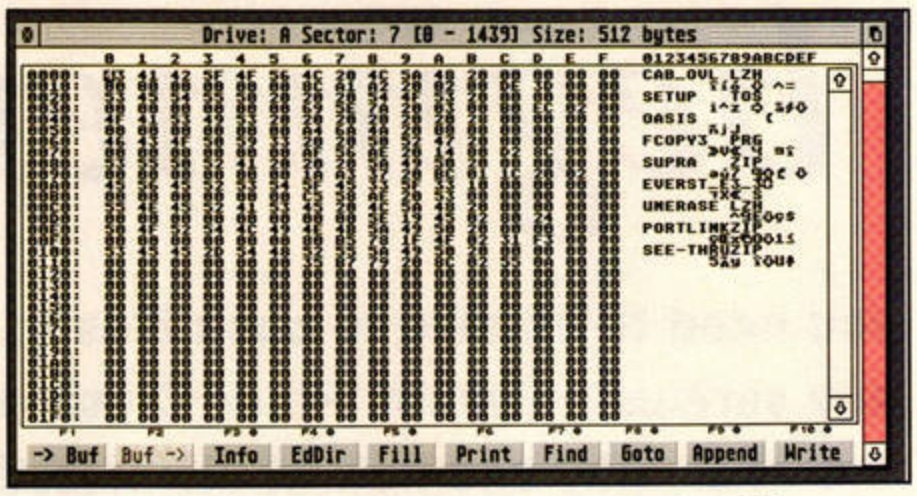
3 To select any file, click on it. This puts its name into the Selection: line. Click on the OK button to confirm your choice and load the file into your program – here we are loading TOM&JER.PC1 into *Imagecopy*. ST file names can have up to eight letters, followed by a full stop, followed by three 'file extension' letters.



4 You can move up and down the list of files using the scroll bar. When you are about to save a file, type a name for it on the Selection: line. Alternatively, select one of the many files already displayed and edit its name. Be careful not to overwrite an existing file – use the Cancel button to back out if necessary.

The Ex-Files

If you pull your hair out when a disk fails, you'll end up looking like Frank Charlton. Follow his disk doctoring guide instead.



Sector editors, such as *DADE*, are very powerful tools, but will wreak untold havoc if you're not extremely careful with them.

Panic – sheer, naked panic. We all feel it occasionally, when that valuable file suddenly disappears, or that disk full of important work suddenly decides to play blank. Aaaarrgh!

However wonderful your ST is at managing your correspondence or finances, it isn't 100 per cent reliable when it comes to hanging on to that work. Nevertheless, panicking is the last thing you should do. No matter what you've lost, be it a single file or an entire hard drive partition, keep a cool head. Arm yourself with a collection of diagnostic and recovery tools on separate floppies and you'll improve your chances drastically.

I love trash...

The most common type of data loss is the simple mistake we've all made: deleting an important file by mistake. However, when you drop your novel on the trashcan, it doesn't actually get erased...

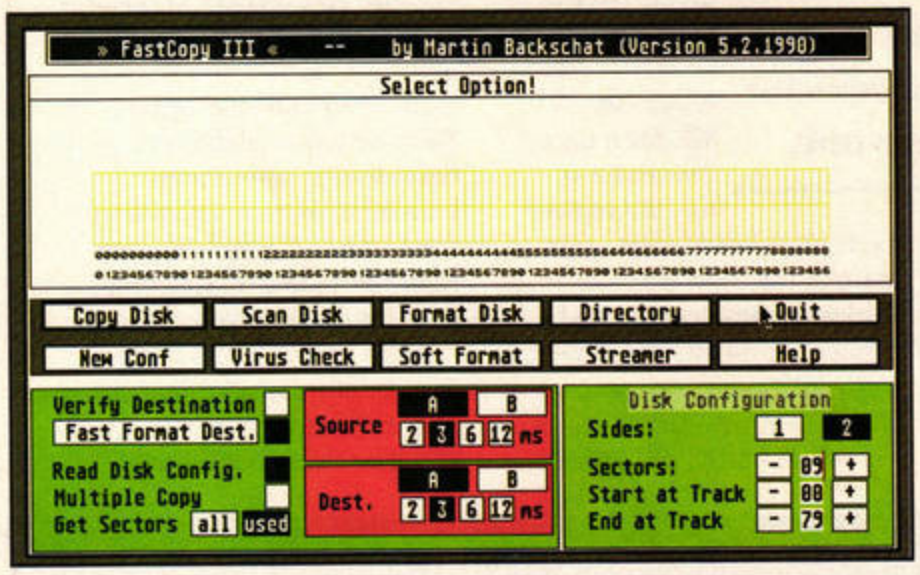
Your ST organises the files on a disk using something called a File Allocation Table, or FAT. It's a section of the disk where the ST keeps a record of all the files on the disk and their locations. Large files may be spread right across a disk, but the FAT tells your ST exactly where each part of each file is recorded.

When you delete the file, the ST simply changes the first character of the filename to one which TOS ignores. From then on, any parts of the disk which were used by that file are considered empty, and can be used to save new files. The file itself is still physically there, and can usually be recovered.

When you drop your novel on the trashcan, it doesn't actually get erased.

The first rule when you accidentally trash a file is to stop dead in your tracks. Don't save anything else to that disk, and make a quick copy of it if it's a floppy.

Simple undelete utilities change the first character back to a valid one, so your ST realises that the file is still there. The most basic programs simply ask you for the name of the file you want to undelete, but more advanced tools, such as HiSoft's *Diamond Edge 2*, can hunt through a disk, showing you any deleted files. When you do get a file back, copy it to another disk and check it thoroughly.



Both *Fastcopy 3* and the commercial *Pro* version can repair dodgy disks as they copy.

Disk doctors

Disk editors, often called sector editors, are the ultimate weapons in the disk doctor's arsenal. They are more powerful than simple undelete utilities, but need to be used very carefully. These tools edit a disk at a very fundamental level, so they can be very destructive if you aren't sure what you're doing.

However, if all else fails, a sector editor can help you manually tweak a damaged disk long enough to rescue some of the missing data. Unfortunately, most have a learning curve as steep as the slopes of Everest, and you need to understand the theory of disk construction to do any serious recovery work. Commercial editors include the *Diamond Advanced Disk Editor (DADE)*, which comes

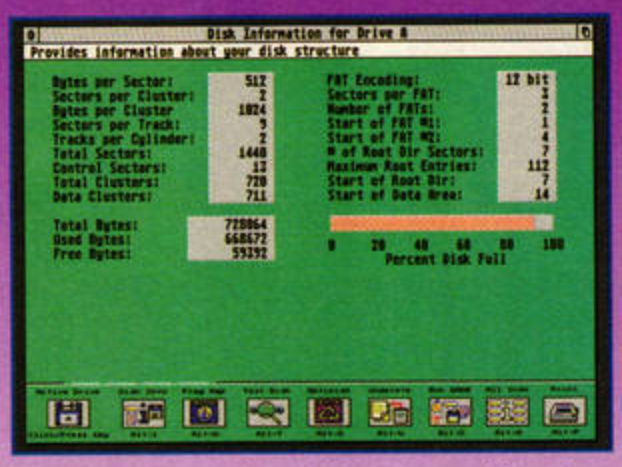
DIAMOND EDGE

When it comes to keeping floppy and hard disks healthy, we heartily recommend one piece of kit: *Diamond Edge 2*. It's the best weapon you can have in the fight against data loss. Not only can it rescue deleted files, but also it's excellent at preventing more serious problems.

***Edge* can defragment your drive (see the It's Just Like Packing Socks panel for details) to improve your chances of recovery. It also guards against hard drive problems with a utility called *Disk Mirror*, which stores important FAT and SCSI partition information to floppy at pre-set times – every boot, every day or even just once a week.**

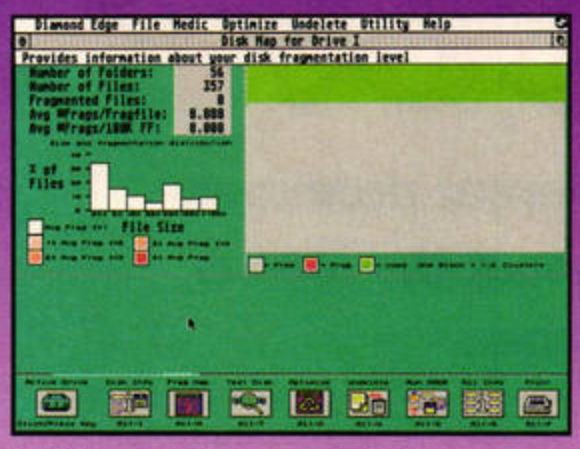
If major problems, such as FAT corruption, strike, *Mirror* can restore the FAT data from floppy, increasing your chances of recovering the data. You can also use *Diamond Edge's* disk diagnostics facilities to keep a careful eye on the health of your important disks and partitions.

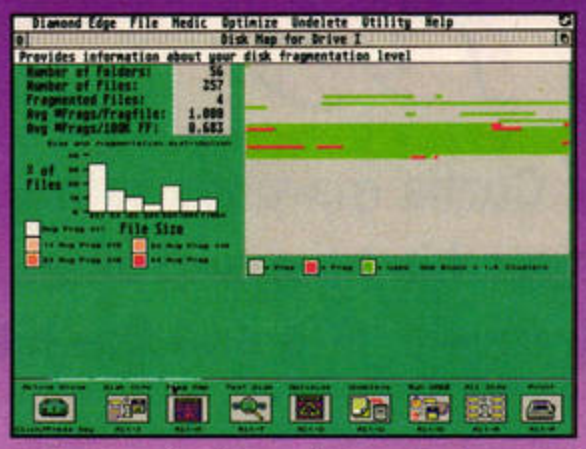
● Diamond Edge 2, £49.95
HiSoft ☎ 01525 718181



Diamond Edge is the ultimate disk recovery tool kit, and well worth adding to your software collection.

IT'S JUST LIKE PACKING SOCKS





As disks are used, they gradually become fragmented. This isn't as serious as it may sound, and there's a simple way to explain it.

Imagine you are packing lots of pairs of socks to take on holiday, and have three suitcases. If you pack the socks first, they will all be neatly arranged in one block in the first suitcase, right? On the other hand, if you pack them last, you end up shoving each pair of socks into whatever space you can find.

Your ST treats files the same way. A file saved to an empty disk will be stored in one continuous block. If files are saved and deleted over a period of time, the available free space becomes fragmented. When you save a new file, your ST will split it into chunks and stuff it into the small spaces left when you deleted the previous files.

A badly fragmented disk or partition becomes slow, because the ST needs to look all over to retrieve the sections of the file. A severely fragmented file is also more difficult to retrieve in the event of a problem. Defragmenting your drives on a regular basis – say once a month – improves their health immensely.

You can see the difference between an unfragmented disk (left) and a badly fragmented one (right).

with *Diamond Edge 2* (£49.95), or the aging but superb *KnifeST* (£24.95), both from HiSoft (☎ 01525 718181). They come with manuals which provide a good grounding in the theory you'll need, too.

There are lots of freeware and shareware offerings, the most reliable of which is probably *NeoDesk* author Dan Wilga's *MemFile*. If you're going to tinker with a disk's raw data structure with one of these programs, always work on a backup, and be prepared for some frustrating experiences.

Magnetic storm

There will also come a time when you need to cope with much more critical errors on your disks. Just like other magnetic media, such as video and audio tapes, floppy disks are susceptible to damage from heat and magnetism. Keep them well away from strong light and heat sources, and don't leave them lying anywhere near powerful magnetic devices, such as speakers.

Even the most carefully stashed disk can produce errors after a while, but all isn't necessarily lost. A competent disk copy program can duplicate a damaged disk, often correcting any physical errors it finds.

The file is still physically there, and can usually be recovered.

Fastcopy Pro (£14.95 from FaST Club, ☎ 0115 9455250) is an excellent example – it uses a 'best guess' system to work out what was on any damaged disk sectors, and can often recover an entire disk.

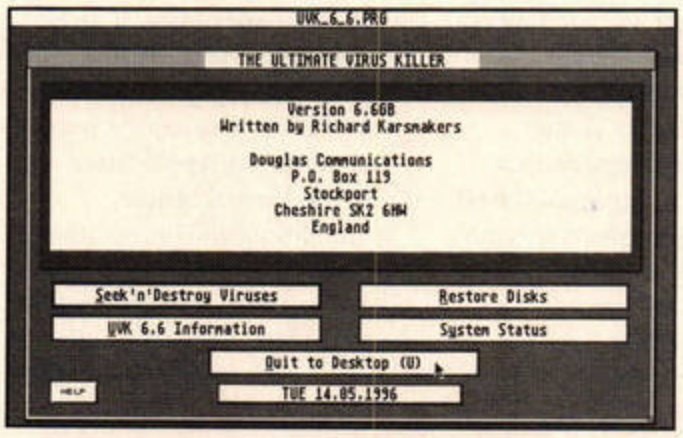
More serious disk errors can occur when the FAT or directory information is wiped. The data is all still sat there on the sickly disk, but you can't get at it. Utilities which store copies of the FAT information can prove invaluable in cases like this, but they aren't much use if you've haven't used them before disaster strikes.

In extreme cases, the old sector editors are probably the only option left. *KnifeST* provides the best chance at making a working copy of a badly crippled disk, but it isn't easy. You may be better off abandoning the lost data and starting again, remembering to keep regular backups.

Pesky bugs

Your data may also be at risk from tiny programs which deliberately target your files – the virus. While they aren't as prevalent on the ST as some might have you believe, a virus attack can do serious damage. The best preventative tool you can get is *Ultimate Virus Killer* (£12.95 from Douglas Communications, ☎ 0161 4569587). It can detect and kill all the viruses known to attack Atari computers.

Commercial games and even some multidisk demos rely on a small portion of the disk known as the boot sector to load and run. Even a relatively harmless virus, such as *Ghost A*, can wipe this sector, preventing the game from working. *UVK* helps here, too, because it can restore the boot sectors of hundreds of games and demos. If a virus strikes and you don't have *UVK*, you'll regret it. *stf*



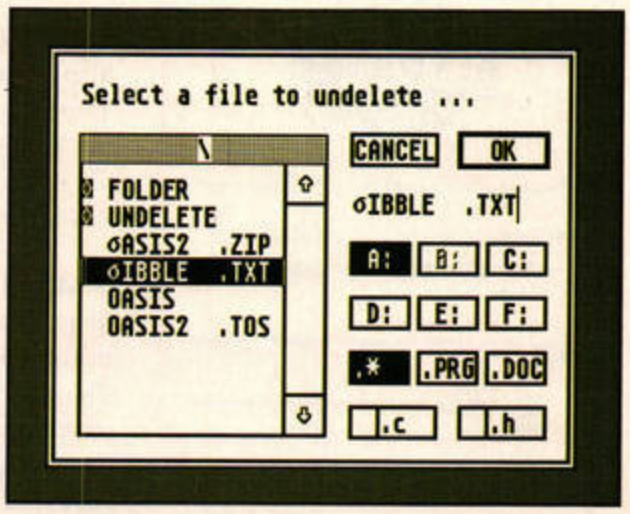
The *Ultimate Virus Killer* is well named – it can deal with every known virus that attacks the Atari platform.

CAN'T HAPPEN HERE?

However much you'd like to think that data loss won't happen to you, sooner or later it will. Even with the best recovery tools and a head full of technical knowledge, some data will always be impossible to recover.

Like most things in life, prevention is far better than cure, so what do you do? Simple – make backups. We know it's tiresome and seems like a waste of disk space if you've never lost any important files, but there will come a day when you'll be glad you kept spare copies of important work. For the definitive guide to backing up, check out our feature in issue 76. Turn to page 50 if you need a back issue.

There are some great backup utilities available as shareware too, such as the smart *ElfBack* program.



There are several simple utilities that attempt to recover accidentally deleted files. You'll even find one on this month's Cover Disk (see page 6).

The Score

Andy Curtis marches to a different drummer, changes his tune and sings about the joys of MIDI, music, STs and the Internet.

Cubase's future

Despite a rash of rumours that Steinberg has ceased support for Atari machines, its software continues to be sold and it's very much business as usual for Atari MIDI retailers. Harman Audio continues to offer technical support for *Cubase* and *Cubase Audio*.

The misconception that Steinberg has 'dumped' the ST may be due to reports that no new versions of the software are planned. However, upgrades and bug fixes are appearing as normal and the software is on sale throughout Europe. *Cubase*/ST is still the platform and software of choice for many musicians because of its reliability, cheapness and ease of use. If an ST breaks down it is easily repaired or replaced, often for under £150. The same cannot be said for an Apple Mac.

The Virtual Studio Technology (VST) now offered with *Cubase*/Mac has its roots in *Cubase Audio*/Falcon, which was the first version to offer on-board reverb effects and equalisation without requiring extra hardware. Once again, the Atari platform shows the way.

The bells and whistles on offer in *Cubase VST* on the Power Mac owe a lot to the pioneering work in *Cubase Audio*/Falcon.

MIDI on the Web

Yahoo! is a great place to start your quest for MIDI on the Internet. Simply type in MIDI as your search string and wait for the links to appear.

Now that you can access the World Wide Web from your ST, thanks to the *Crystal Atari Browser (CAB)*, let's take a look at how the Web can help MIDI enthusiasts.

The easiest way to gain access to the wealth of MIDI and music sites is to use a Web directory. The most famous one is called Yahoo!, and its URL (Uniform Resource Locater, or address) is listed below, along with a few others you might find interesting. They all contain links to more of the hundreds of MIDI pages available on the Web.

Keyboard magazine runs a superb Web site which is well worth a look.

● **Yahoo!**
http://www.yahoo.com/
You can use this page to search the Web – just enter MIDI as the keyword to start your voyage of discovery.

● **Midi Web**
http://www.digiface.nl/midiweb/index.html
This site is all about MIDI support, both for and by its users. There are DIY projects here and a wealth of information about technical specifications. If you have something to upload, you could see your contribution featured on the site.

● **Jazclass**
http://www.ozemail.com.au/~jazclass/
This is a great Australian site for everyone who has an interest in jazz. It provides an on-line tutorial which helps you improve your jazz style, and you can e-mail the author with your feedback. Think of it as a kind of jazz club.

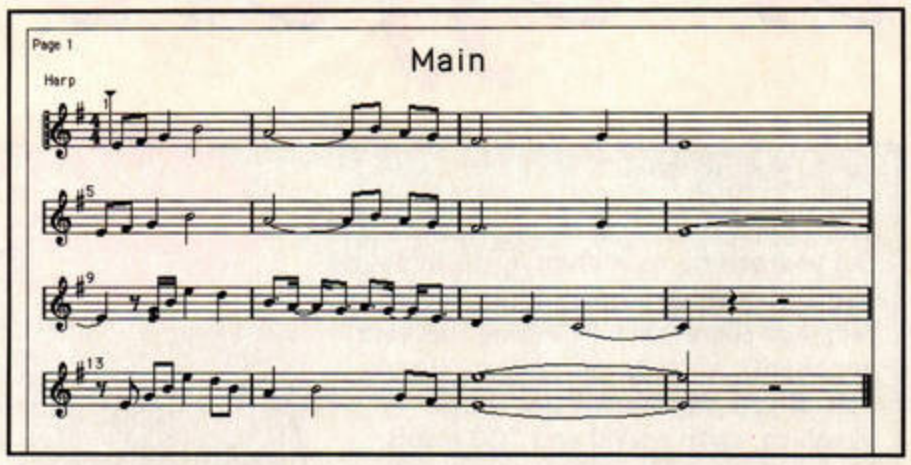
● **Harmony Central**
http://www.harmony-central.com/MIDI/
If you're a tech-head, you'll love this site. It has details of the MIDI specification itself as well as hardware projects and software design tools. It also features Atari MIDI development software.

● **Brent Ban's Home Page**
http://www.rain.org/~bain/othrmid3.html
Like the majority of MIDI sites, this one has a selection of clickable links to other MIDI sites. If you follow these links around the Web you will soon discover just how much stuff is out there.

● **Keyboard Central**
http://www.keyboardmag.com/
American *Keyboard* magazine now maintains this excellent Web site with information about artists, MIDI files, samples and loads of useful hints and tips. It's definitely worth a visit.

MIDI Web has links to information about everything from hardware to MIDI programming.

Quick questions



The Score Edit page in *Cubase Score 2* is a complete score DTP package. You can step-enter your score or add the notes one at a time.

QUICK INPUT

Q I need a quicker way to input data, because my keyboard skills just aren't up to much. I spend ages playing in from the score and it looks dreadful in the edit page. There has to be an easier way. I thought computers were supposed to do everything for you!

Is there an OCR program for music that runs from floppy disk so that I can hand-scan music and load it into a MIDI file for the sequencer? There has to be a way.

Graham Duke, Birmingham

A *It would be helpful to know what sequencing software you use, Graham, but your best bet is probably to enter the score directly into the computer.* Cubase Score 2 *makes this easy – just pick up the note value you need and drop it on to your score. You can even add words and titles before you print it out.*

I don't think there is much mileage in an optical character recognition system for music. I've never heard of one for the STE, and if there is, it will almost certainly require a hard disk. Furthermore, using a hand scanner in this fashion would be a pain in the neck.

The best thing I can suggest is to practice your keyboard skills until you have a little more confidence. Alternatively, have a stab at score entry – you might find it's just the job.

SICK KEYS

Q I have recently purchased a Yamaha PSR620 keyboard. I am finding that viruses are being transmitted to it from the Atari computer. I have them connected by MIDI leads.

I would like to know if I am doing any lasting damage to the keyboard. I have asked this question in all the computer and music shops in the area, but they either didn't believe me or didn't know what I was talking about. They don't know because they deal in either keyboards or computers and no-one has knowledge of both.

P Wilkinson, Witherness

A *I hope it will be a great relief to you to know that there is absolutely no possibility of a virus transmitting itself from your ST to your keyboard. It just can't happen. Viruses can only spread themselves on systems that are alike; they can't infect a completely different system.*

An Atari virus can't infect a Mac running System 7, because the two operating systems are utterly different. This is even more true between a computer and a MIDI keyboard. You may have some problems with your Yamaha, but they are not caused by your Atari, so sleep soundly from now on.

IPS PLEASE

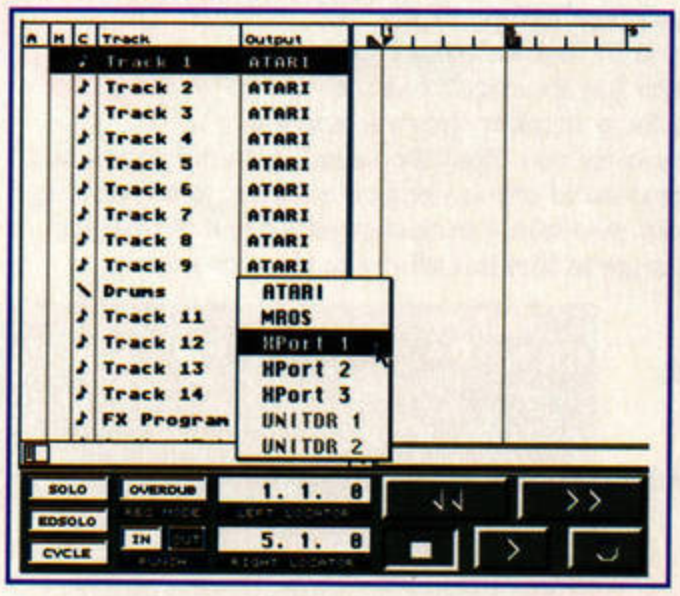
Q A few months ago you promised us an idiot's guide to *Cubase's* Interactive Phrase Synthesiser in The Score, but it never appeared. I was really looking forward to this feature, so I thought I would ask if you really could have a bash at explaining the mysteries of this edit page? Please?

Charles Stevenson, via e-mail

A *Okay, Charles, you win. Look out for an easy tour of the IPS very soon on these pages. Thanks also to several other people who e-mailed about this.* ***stf***

If you have any questions for Andy, please send them to: The Score, *ST FORMAT*, Future Publishing, 30 Monmouth St, Bath BA1 2BW. You can also e-mail them to: andy@adlib.co.uk.

EXTRA MIDI?



Cubase Xtra uses the *Xport MROS* driver to route MIDI data to your new port. Simply select one of the *Xport* drivers in the Output column of *Cubase's* Arrange window after enabling the driver.

Mel Clark, Chrissie Ng and John Talbot have all written in with the same query about GM synthesiser modules.

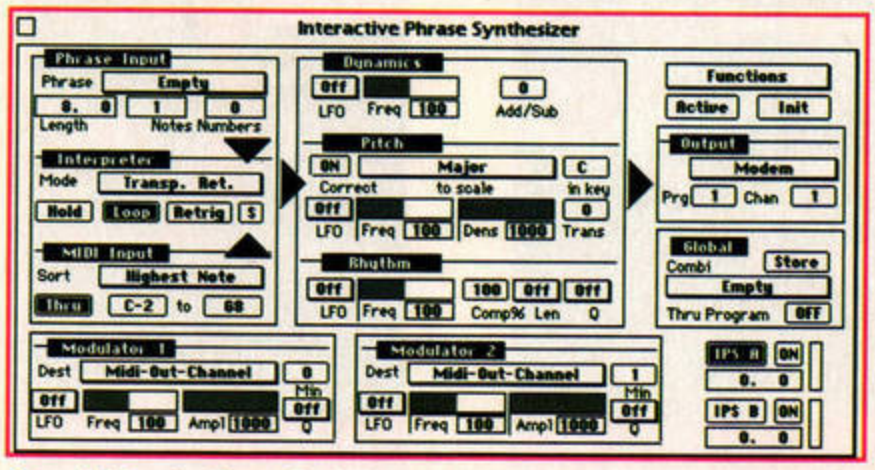
Because synthesisers like the Roland SC7 make no provision for turning MIDI channels off, the module uses all 16 MIDI channels all the time. This is fine as long as you only have one module. With the addition of another keyboard or drum machine, it becomes a real pain. If you plug your new equipment into the same MIDI chain as your SC7, it is impossible to drive it without the SC7 joining in. The solution is to use a separate bank of MIDI for the extra equipment, so your SC7 can luxuriate in its full complement of 16 MIDI channels.

The problem that you are now faced with is how to expand your setup to include an extra bank of MIDI. It's easy for *Breakthru* users – all you have to do is upgrade from *Breakthru* to *Breakthru Plus*. The enhanced version includes everything you need to use an extra bank of MIDI from your ST's serial port. Call Software Technology in ☎ 0161 2362515 for upgrade details and prices.

If you use *Cubase*, there are several options. The expensive way is to buy one of the big MIDI expansion units. The best value unit is the Sound Pool MO4 (£259) from System Solutions (☎ 0181 6933355). This will give you an extra four banks of MIDI, which is very handy if you have a large studio.

If you have only a small setup, the Cubase Xtra package could be just what you need. It offers just one extra bank of MIDI, but it costs only £14.95 to readers of *ST FORMAT* (normal price £19.95). To order it, send a cheque for £14.95 to: Alpha Electronics (The Score 84), 28 Pavilion Tce, Burhope, Durham DH7 0DN.

Simply plug the cartridge into your serial (modem) port and you can give your SC7 all the MIDI channels it needs, while using your extra MIDI modules at the same time. Problem solved.



Cubase's Interactive Phrase Synthesiser remains a closed book to many, but we will explore its uses very soon in The Score. Honest.

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Customer Services is on ☎ 01225 822510

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FUTURE BOOKS

Written by *ST FORMAT*'s very own Clive Parker, this little volume is full of useful hints and tricks. Discover how your Atari works, improve its performance, and read about all the best ST software and hardware.

Description: *Get the Most Out of Your Atari ST 2*
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***STF* price: £10.99**
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1Mb required

JIMMY WHITE'S WHIRLWIND SNOOKER

VIRGIN

More enthralling than a Steve Davis 147 break, weirder than Dennis Taylor's glasses and funnier than Ray Reardon's haircut – if you're looking for a snooker simulation with a difference, this is for you. Realistic sound, cute animation and the stunning real-world physics engine will keep you returning again and again. And with a trick shot editor and two-player option, this is a game that has all the angles covered.

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Disk: *Zero-X* demo, *Snoball in Hell* **Inside:** Pump up your ST; Sound sampling **Reviewed:** *MagiC 4, NVDI 4 ExtenDOS Pro* **Tutorial:** *Positive Image*

ISSUE 81 – APR 1996

Disk: *CAB, Zaptastic, The Espers* **Inside:** The Internet; Desktops; Text adventures **Reviewed:** *Vision, EZ Drive PageStream 2.2 SE, Power Drive Rally*

ISSUE 80 – MAR 1996

Disk: *Positive Image* demo, *Deadland* **Inside:** Image processing; 3D **Reviewed:** *Strip Cartoon, Time Talk, Textstyle 1.1* **Tutorials:** HTML, *Breakthru*

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Obsession is a technically brilliant re-creation of pinball that scored a massive 94% in issue 67. Our reviewer described it as "one of the greatest ST games ever."

UDS followed up *Obsession* with *SubStation*, the first attempt at *Doom* on the STE and Falcon. You must roam a dangerous underwater energy plant that has lost contact with the surface.

Now you can get *Obsession* and *SubStation* together, for less than the price of the individual games!

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Team is a game that no serious footie fan should be without. Beneath the attractive graphics and atmospheric sound effects lies a true football simulation that's as realistic as it is exciting. *Team* gives you loads of options, too – you can select the pitch conditions, your team's tactics and even how blind the ref is. This is simply the finest footie game ever – just ask Nick, he's still playing it.

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512K STFM RAM UPGRADE

ANALOGIC COMPUTERS

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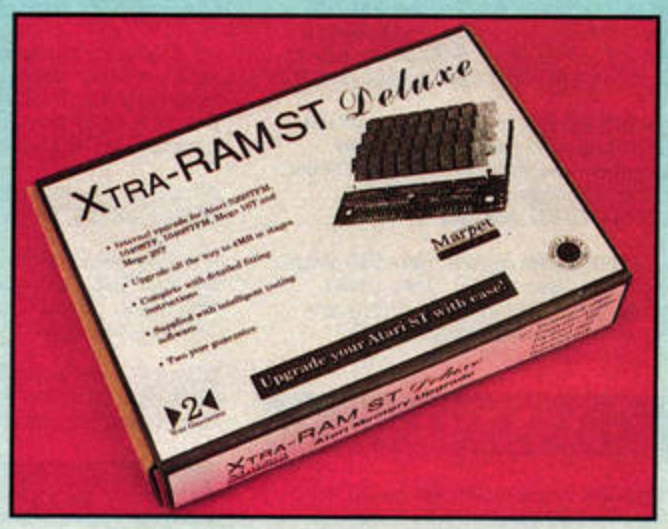
You don't need us to tell you about the hassle of finding decent new software for your 520STFM. All the best products seem to be for 1Mb machines these days, but there's no reason for you to be left out – especially at these prices. These Marpet Xtra-RAM Deluxe boards make it easy to upgrade to 1Mb, so you don't need to worry about fitting problems either. So what are you waiting for, upgrade your STFM today!



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SALES

Samsung 9-pin mono printer, IBM/Epson new ribbon. Excellent condition. £60 ono. Tel: 01865 378076.

Atari software/hardware for sale. For list write to: S Balcham, 1 Cornwall St, Cottingham HU16 4NB.

ICD 64Mb hard drive with system disks £80. Tel Phil: 01354 59246 after 18:00.

Philips CM 8801 colour monitor VGC, £80. Loads of ST magazines: ST FORMAT, ST Action, ST User, ST Review, disks – offers. Tel: 01525 867676, ask for Paul.

150 ST games for sale. Originals with manuals but no boxes. Send SAE for list to: G. Pickett, ATP/AWCS, UKDSU DET Maastricht, BFPO 18.

STFM 2.5Mb, TOS 2.06, second disk drive, colour monitor and lots of software, £250. Reason: I've gone Falcon. Tel: 0114 2819705.

520STE upgraded to 1Mb, ST FORMAT 40–74 with cover disks (and binders.) Mouse, games inc SimCity, Xenomorph. Plus Quartet, Playback, That's Write. £150. Call Andy: 0181 5211027.

Inkjet/bubblejet refills for ALL printer models at wholesale prices. Also 3.5-inch HD disks from £25 for 100. Ring Dipak between 6–9pm any day. Tel: 0181 5221342.

ST software: Calamus 1.09, £10; LDW Power spreadsheet, £15; PageStream 2.1, £18; Home Accounts, £3; cover disks, £1 each. Many games, all original. Ring Dipak 6–9pm on 0181 5221342

Calamus SL. Professional DTP for the Atari. Latest version, complete, only £100. Tel: 01273 554894

ST manuals (new) £6 inc post. Three to go. ST UK language disks (originals), £2 each (various ST models). Tel John: 01705 832145.

35 Atari ST Games £25. No offers, all boxed and in excellent condition. Write to: Mr TA Newsum, 38 Hartington St, Derby.

Games: Chaos Engine, £7; Speedball 2, £4; Xenon 2, £4; Railroad Tycoon, £12; Utopia, £3; Sensible Soccer, £7. Others. Contact: Ivan, 42 Dickson House, Ridgeway Rd, Hanley, Stoke-on-Trent, ST1 3BA.

Brand name 486DX2 PC, complete multimedia kit, SVGA monitor, 8Mb RAM, CD-ROM drive, 270Mb hard disk, Windows 95 and printer, £800. Tel: 01494 438541.

Atari MegaSTE 4/50, £450. Atari spare parts: Falcon PSU, £45; Falcon keyboard, £45; ST clock cartridge, £10. Tel Paul: 01527 500873.

System Solutions 127Mb hard drive, £110. Blitz Turbo copier, £10. Monitor switch box, £10. External disk drive, £35. 50 DSDD disks, £13. Tel Mark: 01778 393680.

520ST, 1040ST, 2Mb ST, 80MB HDD. Mono, colour monitors. AT-PC emulators. SLM804 laser printer, software, £300. Might split or swap. Tel Mike: 01480 475036.

STE 2Mb, 240Mb hard disk, Star LC-200 colour printer, software, £350 ono. Tel: 01204 699360.

Brother HL-630 laser printer, 300dpi, 6ppm, PCL4 emulation, only five months old, still under warranty. £340. Tel Bernie: 0171 7063178.

Atari 520STFM, 1Mb, unboxed, double-sided drive, greyscale hand scanner (400dpi). Sequencing software, art packages, plus loads of cover disks. Complete with leads, mouse, mat and joystick. £85 ono. Tel: 01792 812419.

Atari1040STE, mouse , joystick, two floppy disk drives, lots of software. ST FORMAT 58–84 inc subs disks from 64. Excellent condition, all leads boxes and manuals. £200 (delivery considered). Tel: 01977 556120.

Atari 520STE with 1Mb upgrade and lots of software, £175. Excellent condition, Atari 520STFM with monitor (Atari 124 B/W), plus external drive £250. Tel: 01525 716307.

Atari 1040STE, 1Mb RAM, mouse, some software, £1,500. Plus unused Sony 14-inch TV with SCART, £1,800. Will split. Call Athul: 0181 4403948.

1Mb STE with 110Mb hard drive, Citizen printer and second disk drive plus lots of software. Tel Ian with offers: 01625 426186.

Atari 1040 ST, colour monitor, black/white monitor, NEC CP6 printer, extra disk drive, 300 disks inc word processors, spreadsheets, art and design programs and many games, joystick and mouse. Excellent condition, £500. Tel: 01732 810640.

Leaving Atari, variety of genuine software for sale. Timeworks, K-Spread, Graph, Textstyle etc. Cheap and P&P. Tel: 01273 585301.

1Mb STE, external drive, two mice, two joysticks, hundreds of disks, only £225 ono. Tel: 01923 241243, after 6pm, weekdays.

Premier Manager, European Champions, Goal!, Sensible Soccer, Utopia, TV Sports Football, Tie Break Tennis, Kick Off 2, Player Manager, Tenstar Games Collection, Ultimate vs Killer, American Football Simulation, Headcoach 3, Microprose Golf, Jimmy White Snooker, Archer Maclean Pool, Graham Gooch Cricket, Chaos Engine, Streetfighter 2, Speedball 2. Tel: 01247 822289, after 6pm.

Only £50 will buy you an Atari Megafile 30 hard drive loaded with software. Tel: 01773 744525, after 6pm.

Citizen Swift 24-pin dot-matrix printer, colour, with manual and cables wil sell for £100. Call Kay: 0171 7711305, after 6.30pm.

Systems Solutions 127Mb hard drive with SCSI adaptor cable. No bad sectors. Perfect working order, £100. ST FORMAT 69–80 with cover disks, £12. Tel Mark: 01778 393680, evenings/weekends.

Falcon030, 4/65Mb, FPU, 40/540Mb hard disks, CD-ROM drive, hand scanner, DJ500 printer, PageStream, Apex, Rainbow, Imagecopy, Outside, Musicom, 150 mags and disks, £950 ono. Tel: 01734 624931, evenings.

Atari 520STFM, 2Mb upgrade, Star LC-10 printer, 120 disks, software inc DTP, diaries, utilities, graphics, word processing etc. Everything you need to start computing and games. £150. Tel: 01524 832826.

WANTED

Airbus A320. Europe or USA. Will pay £20 plus postage. Leave message on: 01745 854121.

Flight Simulator 2. Tel: 0181 8591630.

Tabby for ST, will buy or swap for 720K external disc drive (good condition). Tel: 01253 391022.

Original boxed copy of Pacific Islands, will pay £20. Ring Daniel: 0115 9252375, 4–6.30pm.

Atari SM205 2Mb hard disk, Steinberg MIDI expander, leads for Atari SF 354, ext disk drive including in/out and power leads. Tel Gerald: 01266 44480, after 7pm.

F19, A320, F15 2, Knights of the Sky, Sabre Team and any historical war games including Rorkes Drift. Tel: 01582 482152.

Microprose GP, F2 and Retaliator, Double Dragon 2, 3, pay £10 max each. Tel Martin: 01606 889831, after 5pm. Also willing to swap.

Both contacts and programmers required for creation of a magazine and new games for the ST. Tel Kevin: 01722 410579 for details after 7pm.

Disk two of my F16 Falcon (original) has become corrupted, can anybody help me? Contact Carl Surgey: 01296 435596.

Premier Manager 2, Frontier Elite 2, Civilisation. Tel Dave: 01522 688209, before 5pm. £20 offered.

Prism Paint (v1.5 or higher) and manual wanted. Write to: Mr J Nicolls, 42 Marlene Croft, Chelmsley Wood, Birmingham B37 7JW. Tel: 0121 7703938.

Two 28-pin TOS 1.62 STE ROM chips. Also wanted, Yamaha DX100 mini-synth, any condition, must be cheap. Tel: 01639 642014.

Atari high res monitor, any model considered, plus information and add-ons for Atari Falcon030. May consider complete setup. Tel: 01884 257487.

VideoMaster cartridge in good condition. Also games esp: War in the Gulf, A320 Airbus, Midwinter 1 and 2, Lemmings, send me your list. Tel Lee: 01843 583990.

Need help beginning Operation Stealth and Not a Penny More/...Less. I also want a backup of Mean Streets disk 2 (+ ST contacts). Write to: Lee Bassett, 1 Watergate, Bexhill, E Sussex, TN39 5ED.

Microprose Golf suitable for 1Mb STFM. Tel: 0117 9248895.

Noddy's Playtime for my five-year-old niece. I will pay a really good price for the full program. Tel Daniel on: 0956 441338 (mobile). Thanks.

Reasonably priced complete Cubase handbook or BUICK: Cubase Power Users Guide. Write to: J Rowland, 17 Briarlynave, Birchencliffe, Huddersfield, W Yorks, HD3 3NN.

Champ Manager 1/2, Prem Manager 1/2, Goal, Sens Soccer. Will swap or pay. Tel: 0191 3862827.

Clip art/graphics please and art/paint programs and any information/advice available. Also copy of set-up details for HP Deskjet 500C printer, thanks. Write to: A. Fitzsimmons, 5 Church Street, Burghead, Elgin. IV30 2XH.

Internal disk drive for STFM, 720K. Tel Paul: 01273 417001.

STE spares, board or may consider complete unit, state faults, no daft prices please. Write to: Steve Taylor, 1 Bleachfield House, Thurso, Caithness, KW14 8QW.

Original ST boxed games and any ST beginners books. Send list to: Mr I Pressland, 1b Market Place, Somercoates Alfreton, Derbyshire DE55 4NT.

SWAPS

Anybody interested in swapping Jaguar or ST games? Your list receives mine. May consider buying. Write to: Vince Corney, 1 St Helier Ave, Morden, Surrey SM4 6HY.

Original boxed 8 and 16-bit software for sale, £1–8, will gladly accept, swap. Sensible Soccer, Captive and many more! Tel Dave: 0181 6760500.

Co-processor for 386SX-16MHz PC (Intel) for Motorola 68882 16MHz co-pro for my MegaSTE. Tel John: 01705 832145.

Original boxed games: F19, Super Space Invaders, Alien Storm, Alcatraz, Rotoz, Power Drift, Bonanza Bros, Hacker 2, Pang, Super Hang On, all £3 or swap. Tel Paul: 0181 8579779.

Atari Jaguar, Doom, AvP, Cybermorph and Tempest 2000, for colour monitor and hand scanner (for STE). Tel Jase: 0121 5535572, after 6pm.

MESSAGES

A really big hello to Bob Kell and congratulations to him and his wife. Will it be a boy, Bob!!

Is anyone still out there in Notts/Derbys? Tel Ade: 01773 744525 after 6pm.

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2. Make sure you read the small print on ads.
3. Beware of companies that don't include their address on their adverts, or don't answer or return your calls.
4. By far the best method of payment is by credit card. If you're ordering goods that come to more than £100 in total value, you are legally entitled to claim compensation from some credit companies if the retailer goes bust. Check your credit card company's policy. You can also try to get extra insurance in advance.
5. If you're not paying by credit card, pay by cheque. Never send cash, and avoid postal orders.
6. Always keep a record of your order, and make sure you keep it somewhere safe. If you're buying by credit card keep a note of the time of the order and ask for an order number. When ordering anything over the telephone, double-check the price before you part with your money.
7. If you are sending a cheque keep a note of the cheque number, the date and the exact value. Make sure you know the name and some details of the mail order company.
8. When you receive your goods, check them carefully. If anything is missing or faulty, contact the supplier immediately.
9. Order from the most recent issue of *ST FORMAT*.
10. If a problem does arise, contact the supplier first. Calmly and politely tell them your problem. Most problems turn out to be minor hitches or misunderstandings, which can easily be resolved. If you think you have a genuine grievance, contact your local Trading Standards Officer. The number is in the phone book.

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...villas in Rio, millions in heist cash and payoffs from privatised national industries. Yup, cheats prosper – according to Simon Forrester, that is.

Gamesbusters

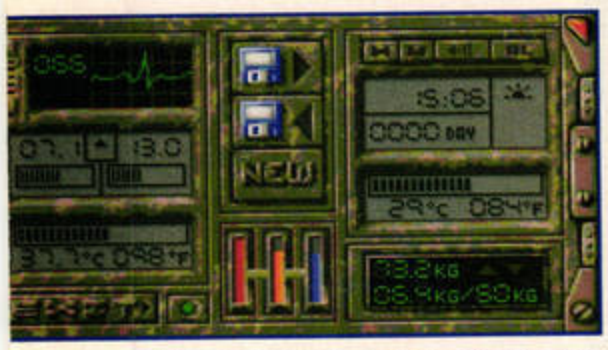
Robinson's Requiem

Wouldn't you just believe it? It's raining, again. Is this game set in Wales, or what?

Here's the next instalment in our continuing saga of planetary exploration. Thanks again to Mike Kirwan for doing all the hard work.

Go south and follow the narrow path to a cross with the carcass of a Robinson. A pterodactyl will attack. Kill it with the hatchet or spear and take a computer from the corpse.

From the narrow path you should be able to see a bison in the clearing below. Shoot it with the laser and head north to the lake again.



This looks impressive. And incomprehensible.

The remaining bison may charge around, making the ground shake, so take the bridge and return to the plain, heading west towards it in order to kill it with your laser. When it is dead you can take fur and meat if you need them. To the south of the clearing you should find the dead body of Pythagoras 32. Take his computer.

Go to the extreme eastern side of the canyon. On the way, combine the syringe with the bottle of serum and give yourself an injection – there are poisonous spiders in the area, some of which you won't be able to kill in time.

Cold, very cold

In the far southeast of the canyon there's an extremely cold cave – put on your warmest clothes before entering. Follow the passage and take the second southward turn into a long cavern inhabited by two tyrannosaurs. As you move south they will attack you, but you can kill them with the hatchet.

Take the easternmost passage at the end of the cavern. Look at the map. The passage forks into two – one fork leads to a dead end where you will find a body with a computer (which you should take), the other to a small cavern. Here you will find water and a turtle which can be eaten, but it's heavy. Its shell makes a tough helmet which you will need later.

Hot, very hot

Now use the knife to scrape ten lots of salt from the walls (they weigh 100g each), then return to the long cavern. Take the southern passage to find the exit to the desert. Be careful, though – the desert gets very hot by day (up to 50°C) and very cold at night (down to 0°C). If it's daytime, get ready to remove all your clothes and put on the leaf hat, because heatstroke and sunstroke take only seconds to develop at such a high temperature. The salt, when eaten, reduces your rate of dehydration, so take some before leaving the cave. Now step into the desert.

Look at the map. There is a large clearing in the southwest corner. Head for this, but watch out for the large patches of quicksand. Save your position before and after circumnavigating each patch.

When you reach the clearing you will find Freud 37, who has gone insane in the heat; kill him. It is probably best to wait until he is walking directly away from or towards you – you can then shoot him with the laser. Recover his computer, spare battery, distress pistol and flares.

Look at the map again. There is a long clearing in the centre of the map, heading north. It is just west of the cave entrance. Head for this and go as far north as possible, always being careful of the quicksand.

Walk west and you should be attacked by some slow moving reptilian creatures. They aren't very dangerous, so kill them with the hatchet. If

Ooh, I love your taste in yellow shorts. No, really I do.

you haven't accumulated enough reptile skins to make a jacket and trousers, stock up now. They will also provide meat. To the south there are more creatures and a mirage which can be safely ignored.

Head west and you'll find the body of Descartes 122 in an alcove to the north. Take his computer. Now return the way you came, travelling via the caves with the tyrannosaurs, the canyon (remembering to inject anti-venom serum before leaving the cave), the very cold caves, the jungle, the caves populated by cavemen and finally the swamps (only enter in the daytime and don't forget to take quinine).

You're now ready for the final stage of the adventure, but there's no point looking for it in future issues – you'll find the rest of the guide on this month's Cover Disk. Happy hunting, Friday...

Ishar 3

This bloke clearly has a problem. I mean, would smiling really hurt him that much? I smile all the time, heh heh heh.

Erm, nice stone cladding, that. Have you worked in the stone-wall building business long?

Mike Kirwan has provided us with so much information that we were thinking of giving him a job. Well, Nick was thinking of giving him my job, anyway. Social diffusion means that, as David Chong also sent us a solution for Silmarils' stunning adventure, I keep my pages for at least another month, if only to amalgamate the two works.

Before we begin, there are two cheats that'll come in handy during play. If you hold the [Control], [Alternate] and [A] keys down while clicking on the far left of the screen, time speeds up. You get full vitality if you use [V] instead of [A].

It's showtime

First, walk forward and chat to Alstar, who'll provide your first game incentive: to get to Typhus Mernith's observatory. Follow the road until you come to a junction, go left and follow the road until you get to the Home from Home tavern. You'll be attacked by three robbers, who can be outpaced. Before long you will have enough good fighters to take them on – and you should, because they're carrying cash.

Turning north, you should make your way to a shop a little way up the road. Buy some lime liquor and food for your travels.

Raising cash is fairly straightforward at this point – there are several gangs of robbers wandering around with 10,000 gold pieces. You'll find them hanging around the poor town (in the large square to the east and the smaller square to the south), and at the eastern end of the northernmost street.

Financial considerations aside, use the map to find your way to the observatory. When you enter the rich town (using the entrance to the west), you'll be stopped by the commander of the guards. If you have a wizard you may be able to kill him (your alternative is to pay 4,000 gold pieces for a pass necklace). Don't attack the town guards, though, because they'll hound you for the rest of the game.

When you finally get to the observatory, go in. When Typhus tells you to leave, give him the lime liquor. He'll now tell you to see Mather Fudius in the far southeast and give you some playing cards. Leave the observatory and head towards Mather's house.

Unfortunately, we're going to have to leave our guide there, but before we pick it up again next month, be sure to stock up on weapons, food and armour. We'll soon be entering our first time gate. *stf*

Who does this guy think he is? David Copperfield? David Essex? Erm...

Ishar 3 is a beautifully presented role-playing adventure. There, I've managed to avoid sarcasm in one caption.

SMELLS LIKE... GAME CHEATS

Ladies and gentlemen, it is with great regret that I present this commendation to Jonathan Page of Cannock, because although his sterling work gave us a complete solution to *The Espers*, he was beaten in battle by the foul cheating writer who knew the solution purely because he wrote the game.

Our next award must go the unknown soldier (he forgot to include his name) from Merseyside who sent a tip for *Carvup*, in the form of names to be typed into the high-score table. R.J.TOONE will give you infinite lives, whereas PUSSYCAT will only give you nine. BUMPER will give you, yes, unlimited bumpers, and ARNIE hands over a handy 100,000 points. Finally, WHOOARGGH is a great way to get that extra speed, and WHOOPSIE will start the game on the final level.

Simon says: May I thank you all for coming along today, and RUN FOR YOUR LIVES! THE COMMIES ARE COMING!

Nick says: Send your queries, tips and job applications to: Gamesbusters, *ST FORMAT*, 30 Monmouth St, Bath BA1 2BW. Don't forget that the rest of the *Robinson's Requiem* solution is on this month's Cover Disk – see page 6 for details.

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Feedback

It's official – he's no longer bitter and twisted. Never mind, write to Nick Peers about *ST FORMAT* instead.

Adventurous

Many thanks for giving us the adventure writing feature by Simon Forrester (*STF* 81). I hope other readers found it as interesting, entertaining and informative as I did.

While Simon did presume that readers would have some knowledge of *GFA Basic*, I followed it all quite well even though I hadn't been able to make head or tail of the language previously. There are many sample *GFA Basic* programs available, but Simon's adventure is the first one I've seen in which a number of the commands and routines are explained in simple terms.

I also fully support the beginners' section because the Atari is not dead by a long way, and new users will keep appearing for a number of years to come. Encouraging them can only be good for all of us.

John Nicholls, Solihull

stf: *Simon was chuffed to bits with your comments, John. It's nice to know when our features are enjoyed and understood – praise is as important as constructive criticism, and lets us know we're still doing our job. Hopefully, you'll also have found the Blueprint for Fun features to your taste. As an aside, we've had some calls for more advanced games programming tutorials recently – what do people think?*

Updates to *NeoDesk 4* have made it more similar to *Ease*.

Slapped wrists

Tsk, tsk... just read the Duelling Desktops article in issue 81. Does Peter Crush know he is comparing release 001 of *NeoDesk 4* to the other systems? I am using release 004.

I believe you may give users a bad view of *NeoDesk*, especially regarding the installation of programs. You can now assign a number of extensions to a program, and use wildcards to include or exclude certain items. You can also have desktop notes in the latest version. These are much like *Ease's* stickies.

Also, *NeoDesk* was designed to be used with *Geneva*, just as *Ease* was designed to be used with *MagiC*. I should know – I run a Falcon with a FX card installed, and can boot up in either *Geneva* or *MagiC*. *Geneva* gets my nod 80 per cent of the time for its stability compared to *MagiC* 4, which I find very slow to boot up and flaky at best. However, I will reserve final judgement until the next version appears.

Maurice Garcia, Los Angeles

stf: *Points noted, Maurice. Peter tried to get hold of an updated version of* NeoDesk *but had no joy from the then UK distributor, Compo. Regarding your comments about* Geneva *over* MagiC, *Falcon owners will undoubtedly prefer Gribnif's multitasking system because of its added stability. ST owners, as Frank pointed out in issue 82, might think differently.*

This and that

I was wondering if you could do a feature on ASSIGN.SYS files. A lot of serious packages use them and require you to edit these files to customise the program. I've always been reluctant to mess with them, for fear of completely messing up the program and having to reinstall it.

I also like the fact you're redistributing old games such as *Populous* 2 and *Lure of The Temptress*. There are lots of old classics which you just can't get nowadays (it has taken me two years to find someone willing to sell me the original *BAT* adventure game). More quality re-releases would be most welcome.

Finally, could you please remove all references to *Star Trek: The Next Generation* from the magazine! I can't abide it and find it a pale imitation, nay, a disgraceful affront, to the memory of the original classic series. It's *Star Trek* Jim, but not as we know it! Oh yes, and some more coverage of *Atari Force* isn't such a bad idea.

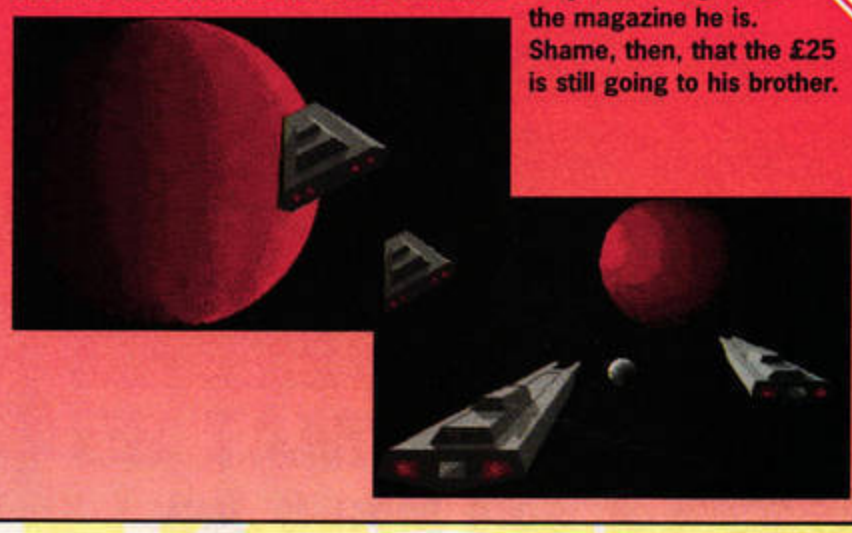
MW Asghar, Slough

stf: *The important thing to remember when fiddling with ASSIGN.SYS, or indeed any other configuration files, is to work on a backup. Make a copy of the original, calling it ASSIGN.BAK, then edit ASSIGN.SYS in a text editor that saves ASCII files. If it all*

PIXEL PAINTING

£25 winner

This month's winner is Scott Burns of Midlothian. In a bizarre act of brotherly love, his sibling Ross has actually done him a favour and sent them into the *ST FORMAT* office. Both these space-based pictures were drawn with the old favourite *Neochrome*, and Ross would like to say what a big fan of the magazine he is. Shame, then, that the £25 is still going to his brother.



Some people prefer Kirk, Spock and company to the likes of Picard and Riker. Here at *ST FORMAT*, opinion is divided straight down the middle. And Mary prefers *Babylon 5*, but then she would. Some people always have to be different.

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NEXT MONTH

Lights, camera, action!

Discover how your ST can turn you into a film director. We show you how to grab and manipulate both still and moving video images.

In control

Control panels – what are they and how can they improve your computing life? All is revealed in our tutorial next month!

CD-ROM for beginners

How to get started with a CD-ROM drive.

Plus

Review of the Blow-Up FX Board, extensive game previews and *Player Manager* on the disk (probably).

ST FORMAT 85 on sale Mon 8 July

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QUICKIES

I think it is wrong to comment on the size of *ST FORMAT*, because if you compare it with other computer magazines on the shelf, it is of a fair size. Also, I think *ST FORMAT* should cover the Falcon Mk X when it comes out.
Chris Wood, Wigan

stf: Thanks for your comments Chris, we'll certainly be covering the Falcon Mk X in depth as soon as it's available.

I have a STFM and would like to upgrade it to 1Mb. Can you tell me if your Xtra RAM ST is all I need to do this? What's involved in fitting it?
S Lampard, Strathclyde

stf: Yes, the Xtra RAM ST is all you need to upgrade your STFM. Although you'll need to open up your ST to fit the upgrade, no soldering is involved and the upgrade comes with comprehensive instructions. Turn to page 50 to place an order.

I read your Absolute Beginners section with great happiness. As I have no manual with my computer please please please print the beginners' pages from it, or I might as well get a Playstation. Not.
Daniel Budd, Wakefield

stf: The manual that comes with STs is renowned for its complete lack of information, so printing the pages would teach you nothing. A much better bet is Clive Parker's* Getting the Most Out of Your ST 2 *(see page 50).

goes wrong, you can just delete your altered file and rename the ASSIGN.BAK file ASSIGN.SYS, rather than reinstalling the program.

Your comments about Star Trek *go against my personal views, but as a close friend of mine would agree with you I won't get into an argument. Besides, we're all too interested in* The Fast Show *at the moment to cram in* Star Trek *references! Which is nice.*

Internationale

You produce the best Atari computer magazine I have ever seen. I have been a subscriber since August 1995 and there's nothing comparable to your mag here in the United States.

I only wish *ST FORMAT* was international. Wouldn't it be great to have dealers and users from around the globe who use and support the Atari platforms profiled in a magazine as good as yours?
D Fangmann, New York

stf: *That's a good idea, although* ST FORMAT *must remain first and foremost a British magazine. Of course, if some wealthy person wants to provide us with a generous travel budget, all that could change. We already highlight major events from other countries, such as the big shows, but a more in-depth look at the international Atari scene is certainly a possibility. The major problem is collating data from the many countries involved, but an on-going feature, highlighting a specific country each time, might be a possibility. I'll look into it.*

Money worries

I have started up a new club in the UK for the Atari Portfolio computer. Please can you tell me how I can send money to my suppliers in the Czech Republic, Germany, the USA and Canada, so I can sell their Portfolio ranges.
Paul Finch, Morden

stf: *It all depends on the individual supplier. However, there are four possible solutions.*

The first, and by far the most unsatisfactory option, is to send cash in that country's currency. Don't come crying to us if it goes missing on the way, though. Three better options are to send Eurocheques (within Europe); travellers' cheques in dollars (USA); and to find out whether they accept credit cards. It's always best to contact your suppliers and discuss your situation first, though.

Send your letters to the editor, Nick Peers, at: Feedback, *ST FORMAT*, Future Publishing, 30 Monmouth St, Bath BA1 2BW or e-mail: npeers@futurenet.co.uk. You can also reach him via our Web site at: http://www.futurenet.co.uk. **Note that letters may be edited for length and clarity and are accepted on the basis of full assignment of copyright.**

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ST FORMAT

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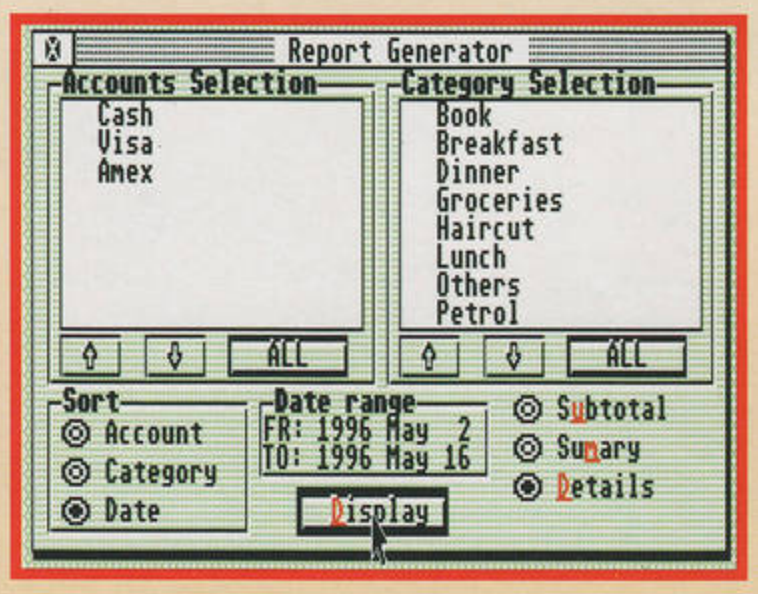

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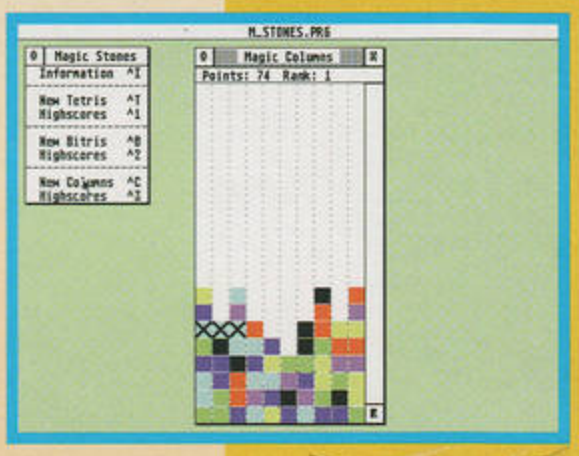

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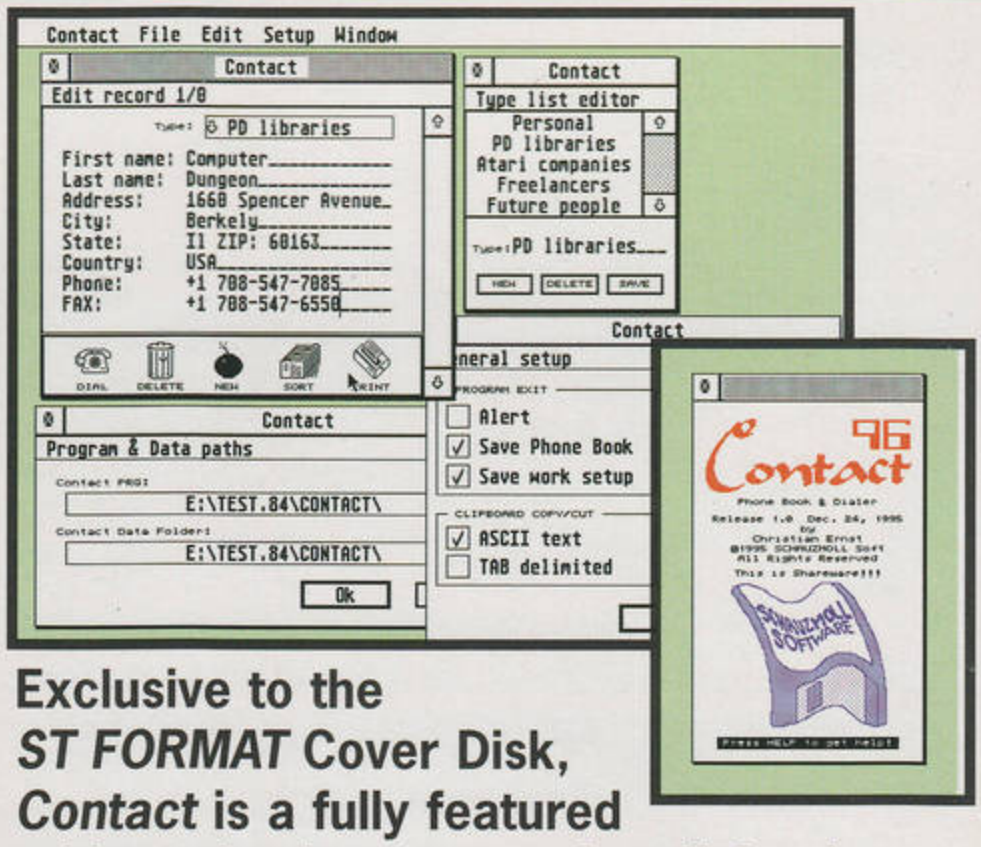

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